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Follow the Star

SINNER or Saint—whate'er you are—
Uplift your eyes and note the Star,
Which long ago o'er Bethlehem shone,
Is shining still—it has not gone.

YOUR faith may waver; men may stray
Far from the path on Life's rough way,
But, constant still, the Star serene
Renews the Promise of the Nazarene.

G. H. C.

December, 1923

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Vol. 30, No. 12

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Christmas

AS these lines are being written, Armistice Day has just passed into history, although the schools are celebrating it on this day, November 12. On Armistice Day, five years ago, a peace message was flashed all over the world, hostilities between all the nations concerned in the gigantic struggle of the World War ceased, and everybody thought that, peace being declared, the work of reorganization and the resumption of peaceful pursuits might progress unhampered. As a matter of fact, war is by no means over and peace on earth seems to be as much of a dream, politically speaking, today, as it has been at any time in history.

Conferences are being held, efforts are being made, prizes are being offered, all in the attempt to discover ways and means by which international peace might be established and maintained. We believe that all these efforts are useless so long as human nature is what it is. And, after all, the peculiarities of peoples and of nations merely are in a greater, larger aspect what human nature is in the individual.

Peace on earth, to us, depends upon the greatest message that the Prophet of Nazareth promulgated, the method that all "saviors"

before him had announced, the same that Sirdartha had insisted upon 500 B. C., namely: "All things whatsoever ye would that men should do to you, do ye even so to them" (Matt. 7:12). It is the message of the Golden Rule.

When we were young, and when the peoples were young, we and they wished each other a Merry Christmas. As we grow older, the merriness often seems forced and artificial. We should be content with a *happy* Christmas. We should rejoice in evidence that would lead us to expect a greater consideration for each other, not only individuals but peoples and nations. A truly happy Christmas message and Christmas gift could come to the world only by the exemplification of the Christmas spirit which is that of *peace on earth to all men who are of good will*. The Bible does not say, "good will to all men", but it makes the peace on earth conditional upon the good will of all men. Therefore, the Christmas message is for those who are willing to give as well as to take, not penny whistles and pounds of candy, but service, helpfulness and affection. It is the same, as we have said before, as the Golden Rule, and we can think of no greater or truer Christmas message than

the one pronounced on the Mountain: "All things whatsoever ye would that men should do to you, do ye even so to them".

The Man who once most wisely said,
 "Be sure you're right, then go ahead,"
 Might well have added this, to wit:
 "Be sure you're wrong before you quit."
 —City Manager Magazine.

CHARITY DESERVED AND UNDESERVED

The days, when charity could be dispensed haphazard and merely because of the desire either to relieve distress or to remove harrowing scenes from one's consciousness, are gone, just as are the days of the Cheeryble brothers whose beneficence was cloaked under a pretended shrewd business reason but was, nevertheless, genuine and spontaneous. Many times, the sort of charity that is bestowed most easily, simply by putting your hands in your pocket and scattering largess, is not always the best thing; in fact, more often it is abused and, certainly, it has created professional beggars who infest the streets even of well policed places like our metropolitan cities and still more the towns of the far east, where they constitute a veritable pest.

With physicians, the question of charity has always been so much a matter of course and it has so entirely been considered an inevitable part of the physician's work to devote a considerable portion of his time and efforts for charity's sake that some men were obliged to set aside one hour every day for gratis consultations (that was before the days of the free dispensaries), and it is told of a certain French physician that, in his ledger, he had a separate page in which a goodly proportion of his services were entered, all of them being charged to "Le Bon Dieu."

More recently, attempts have been made to regulate the charity work that is done by physicians, to limit the services given in dispensaries to people who are really deserving and truly unable to pay in money, and to relieve the physician's private practice of this encroachment upon his time and effort. It will never be possible to eliminate charity from the physician's work entirely. Moreover, it is not desirable that it should be possible. Some of the most satisfactory results of many practitioners have been in charity cases. Some of the greatest and deepest joy of accomplishment has come from charity practice. Nevertheless, the line should be drawn somewhere, even though, in private

practice, this drawing the line must be left to the physician.

It is in organized charity, in cases where the applicants for assistance are investigated and card-indexed and approved, where it seems that abuses of charity might be almost eliminated. And, yet, we find it said (in *Better Times*, October, p. 10) that much of the organized charity miscarries and is bestowed upon the undeserving. It has been estimated that \$200,000,000 is devoted every year to American charity. Statistics from 129 American cities, where central financing of philanthropy exists and thus made possible an estimate, show that contributions were received last year from 21,000,000 persons (these cities are exclusive of New York, Boston and Chicago). The average per capita contributed by the inhabitants of the 129 cities amounts to \$1.71.

In order to determine whether all this money went to legitimate properly managed organizations, the National Information Bureau investigated 2,000 social agencies with the result that, in approximately one-half, conditions are tolerated that are definitely unsatisfactory. It is unfortunate that ignorance of, or indifference to, these conditions make possible the continued activities of a large group of undesirable organizations whose appeals flood the mails, whose solicitors stalk their prey (and their commissions) from door to door and whose benefits, which benefit only the promoter, crop up for every conceivable need, fancied or real.

Winifred C. Putnam, of the National Information Bureau, who contributes the article in question to *Better Times*, says:

"The fact that fraudulent and undesirable organizations still exist is certainly in part the fault of the contributor who fails to probe into the facts before he gives. When every contributor will cooperate and limit his contributions to those agencies which can prove business-like management, there will be less waste and an increased stimulus toward maintaining the work on a high scale of efficiency. Organized social work must take the lead in influencing the contributing public to give only to adequately accredited purposes and organizations."

THE FAMILY DOCTOR

In view of the frequent and constantly repeated complaints about the alleged passing of the family doctor, we are particularly interested

in a remark to be found in a review of "The Doctor", by Elizabeth Porter Wyckoff (*Woman's Home Companion*, September, reviewed in *Hygeia*, October, p. 469) which closes with these words:

"The family doctor is not passing. His professional resources have been greatly enhanced by the advances of modern medicine, and the aids which he can command from specialists. But he, himself, is still the dependable, sympathetic, and trusted reliance of those who are in pain and distress from ever-present illness."

PRIZE ESSAY CONTEST Of the American Chemical Society

Francis G. Blair, State Superintendent of Education, has been officially notified of the opening of the Prize Essay Contest of the American Chemical Society in which all students of high and secondary schools in the State of Illinois have been invited to compete in a national contest for \$10,000 in cash prizes and scholarships to Yale, Vassar and other universities and colleges.

The contest, which is the result of the gift of Mr. and Mrs. Francis P. Garvan of New York, is a memorial to their daughter, Patricia, and is intended to stimulate interest among high school students in the development of chemical science in this country. All arrangements for the contest are in the hands of the Committee on Prize Essays of the American Chemical Society, with headquarters at the Munson Building, New York City. Six prizes of \$20 in gold are to be awarded in each State in the Union and scholarships to Yale and Vassar will be given for the six best essays in the United States. These scholarships will carry with them tuition for four years in chemistry or chemical engineering and \$500 a year in cash. In addition to these awards, many other scholarships will be offered through various universities and colleges.

A set of five books, which include "Creative Chemistry", by Slosson, "The Riddle of the Rhine", by Lefebure, "The Life of Pasteur", by Vallery-Radot, "Discovery, The Spirit and Service of Science", by Gregory, and the "Future Independence and Progress of American Medicine in the Age of Chemistry", by a Committee of the American Chemical Society, is being sent from the New York headquarters to every accredited high and secondary school in the country, and sets of these reference books are being placed in the leading libraries

of the State for the use of students who enter the competition.

The contest, which has the endorsement of Dr. John J. Tigert, Commissioner of Education of the United States, is fully described in a pamphlet which will be distributed through the highschools and the libraries. This pam-



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Prizes will be awarded in each State. A First Prize of \$20 in Gold will be given for the best Essay on each of the following topics. A Certificate of Honorable Mention will be awarded the Second Best Essay on each subject.

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4. The history of Chemistry in the last century.
5. The history of Chemistry in the last century.

State prize winners will be entered in a National Competition for six Scholarships to Yale University or Vassar College. Each Scholarship carries \$500 a year in cash and tuition fees for a four-year course in Chemistry or Chemical Engineering.

Essays to be completed before April 1, 1924.
For information apply to School Principals or
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phlet contains, in addition to facsimile letters of endorsement from Dr. Tigert, and from Dr. E. C. Franklin, President of the American Chemical Society, a full outline of the terms and conditions of the contest together with the letter of gift of Mr. Garvan. The entire supervision of the contest and the award of the prizes has been left to the American Chemical Society by Mr. Garvan. H. E. Howe, Editor of *Industrial and Engineering Chemistry*, the official organ of the American Chemical Society, has been named as Chairman of the Committee, and he is assisted by Dr. Wilder D. Bancroft, Professor of Chemistry at Cornell University, one of the best known men in educational circles in this country and President of the American Chemical Society in 1910; by Dr. Charles H. Herty, President of the Synthetic Organic Manufacturers' Association and President of the American Chemical Society in 1915 and 1916; and by Alexander Williams, Jr., of New York, who is acting as Secretary of the Committee.

It is the plan of the Committee in charge to appoint a national Committee of fifteen who will be chosen from all walks of life; from

among the leading educators, scientists and public spirited men and women of the country. It will be the duty of this Committee to judge the essays and to award the scholarships in the national competition. They will be assisted in their work by State Committees of eleven whose duty will be to award the prizes in the State competitions.

"The trouble with the people who go around talking about psychoanalysis," said the *Detroit Saturday Night*, "is that, if they'd only use the psychoanalysis they talk about to find out why they went around talking about psychoanalysis, they wouldn't go around talking about psychoanalysis."—Hygeia.

TEST FOR CREDIT

A friend of mine who used to sell talking machines by mail-order hit on a simple method for judging out which persons he might trust, writes Fred Kelly in the *Nation's Business*.

On receiving an answer to his advertisements, he wrote to the inquirer asking for the name of his family physician, as reference. If this name was forthcoming, my friend then shipped the talking machine without further ado. He never even bothered to write to the family physician. His reasoning was this: People always pay the doctor last. If a man will give his doctor's name as reference in a mail-order transaction, he surely doesn't owe the doctor any money. And if he doesn't owe the doctor, he probably doesn't owe anybody. Hence, presumably, he is a fair risk for a talking machine or other goods on credit. [Clipped from a newspaper.]

[I call that pretty good and a strong evidence of shrewd reasoning.—Ed.]

LIME STARVATION AND THE PARATHYROIDS

In his interesting article appearing in another department of this issue of *CLINICAL MEDICINE* (p. 876), Doctor Harrower refers to the fact that, in tuberculosis, there occurs a progressive loss of calcium, one of the important mineral constituents of the body, and that this loss takes place in spite of persistent and deliberate medication with calcium salts. This is a part of the "demineralization" of the body which has been accused by French clinicians, Robin, for instance, as a potent predisposing factor in tuberculosis but which, more likely, is one of the characteristics of established (if early) tuberculous disease.

Doctor Harrower declares that the loss of

calcium is due to an insufficient functioning of the parathyroids, since it is these two glandules that govern the calcium metabolism. It follows that a strengthening of the parathyroid function may be expected to arrest the injurious loss of calcium and to aid materially in the restoration of health.

The importance of "lime starvation", in tuberculosis particularly, has been insisted upon for years by John F. Russell, of New York, who based upon it a treatment which he found successful in a great many dispensary cases.¹ French clinicians insist on the same therapy, as was carried out, among others, by Charles Sabourin.² Doctor Sidler,³ a pupil of Professor Ferrier, outlines the same idea and shows how "demineralization" or, better, lime starvation, can be overcome by the ingestion of suitable mineral spring waters. According to Fishberg⁴ several authors maintain that "an excessive excretion of calcium in the urine can be found in all cases of phthisis long before the onset of the disease. In this country, Croftan, John F. Russell, and, more recently, John O. Halverson, Henry K. Mohler and Olaf Bergeim have made some studies along these lines. The last-named investigators have found that the calcium content of the blood of patients with advancing and convalescing tuberculosis revealed that, in incipient cases in which the patients, who were on a high milk diet, showed marked improvement, the values for calcium in the serum were normal and fairly constant. In advanced cases, the variations obtained were greater (some rather high and some rather low values being obtained), and improving patients showed on the average slightly higher values than the unimproved. No marked deviations from the normal, however, were observed in the calcium content of the serum of patients in various stages of pulmonary tuberculosis. It is the opinion of these investigators that the failure of the body to deposit lime around the tuberculous areas is to be ascribed, not to a deficiency in blood calcium, but rather to an inability of the cells of the tuberculous area to utilize available calcium.

"Several French savants, notably Robin, Binet, etc., have found that in the pretuberculous stage there is a pronounced excess in the excretion of inorganic salts in the urine, notably those of lime and magnesia. The result is that the blood, bones, and lung tissue show a distinct lack in these mineral salts. Gaube found that the descendants of phthisical subjects excrete on the average more calcium

¹For instance: John F. Russell, *Medical Record*, Nov. 27, 1909; July 1, 1911; Mar. 22, 1913, and elsewhere.

²Sabourin: "Rational Treatment of Pulmonary Tuberculosis", Philadelphia, F. A. Davis Co. 1921.

³Sidler: *De la Récalcification et de son Importance dans le traitement de la Tuberculose*. Paris: Librairie des Publications Périodiques.

⁴Fishberg: "Pulmonary Tuberculosis". Third Edition. Philadelphia: Lea & Febiger. 1922.

and magnesia than those of healthy stock. Robin sees in this lime and magnesia starvation an excessive amount of self-combustion, and he considers this anomaly in the metabolism the main element in the preparation of the soil prone to tuberculosis, whatever the remote cause may be—heredity, alcoholism, malnutrition, overwork, etc. Infection alone is insufficient to produce phthisis, as is evident from the fact that most people infected with tubercle bacilli escape the disease. It is only when the soil is prepared by the dissimulation and emaciation, by pretuberculous decay, as Robin calls it, that phthisis may develop. The gravity of the pulmonary lesion goes hand-in-hand with the degree of lime starvation, demineralization and emaciation of the body. According to these writers, phthisis is preventable. Demineralization of the body must be sought and, when discovered, prevented by the administration of remedies tending to replace the lime and magnesium which are being eliminated from the body excessively."

It should be mentioned that these and other findings regarding the metabolism in phthisis have not been confirmed generally. In fact, it has been claimed that, in the majority of consumptives, the metabolism is normal, providing that there be no high fever. It is possible, however, that a sufficiently extensive series of observations of the basal metabolism, would find it materially increased in those who may be designated as pretuberculous [which means actually, early tuberculosis] and the suggestion forces itself upon us that a more complete investigation of the subject, in which especially the parathyroid factor is taken into consideration, would tend to elucidate the matter. This seems the more probable, as it has been found that persons with normal or moderately-excessive thyroid function do not acquire tuberculosis, and it is to be kept in mind that studies of the thyroid have only recently separated the parathyroid factor, while, formerly, the results undoubtedly can not be taken as purely pertaining to these glands, since the entire organs were studied without excluding the parathyroids.

At any rate, it has been shown clearly² that the calcium metabolism is materially influenced by the parathyroid glandules and that their removal will result in a notable loss of calcium from the body.

Sajous³ cites Loeper and Boveri to the effect that the exact transformation which calcium undergoes in the body and the exact way in which it is utilized are unknown. We know, however, that a human being needs 1.5 Gram

of calcium per day, in the first six months of life, and from 0.9 to 1.1 Gram after the fifth year. According to a London letter to the *Medical Record* (Mar. 26, 1910), the effect of calcium salts on the blood is not so simple as some of our therapists have declared. Nor is the information contained even in the latest textbooks on physiology more satisfactory. It occurs to us that, possibly, a study of the results of ionic medication may aid in elucidating this and other obscure phenomena.

Speaking of calcium reminds us of an article contributed by Dr. Alfred Martin to *CLINICAL MEDICINE* for November. He claims that the rejuvenating effects of certain mineral springs, more especially the thermæ, are attributable to their contents in calcium and magnesium salts. Strangely enough, he declares that the springs containing calcium chloride (in Bad-Nauheim) are most effective for treating cardiac patients, especially those with arteriosclerosis. This is in distinct contrast to the clinical observation that the free ingestion of calcium salts in elderly people encourages arteriosclerosis.

However, Martin's clinical observations and the reports that he cites concerning certain experiences with milk cows suggest strongly that calcium salts exert a rejuvenating effect upon the organism.

Whatever may be the facts in the case, we confess to being tremendously intrigued by this whole chapter and we are wondering whether the immediate future will throw light on its many phases that are obscure. There is something irritating and humiliating in the obligation to work more or less in the dark. Yet, without "empiricism", progress is not possible. It will be necessary to proceed along the lines suggested by clinical observation and then to attempt to explain results by experimental studies.

Of quite preeminent importance will be the clinical and experimental investigations undertaken with a view to confirming (or refuting) the assertion made by Dr. Harrower that the parathyroids function as "calcium mordants"; that it is their duty to influence the calcium metabolism in such a manner that sufficient amounts of the available calcium introduced with foods or medicines are assimilated into the tissue fluids so as to prevent a loss of calcium leading to demineralization. Further, if such a loss has actually been suffered, the question arises whether it is possible to stay it and to make it good again by the administration of parathyroid substance. While, according to some, the parathyroids are not

²Falta & Meyers: "Endocrine Diseases". Third Edition. Philadelphia, P. Blakiston's Son & Co. 1923.

³Sajous' Analytic Cyclopaedia of Practical Medicine. Vol. 2. Philadelphia, F. A. Davis Company. 1918.

endocrine organs, and do not elaborate an internal secretion, they nevertheless exert a distinct function which is a necessary condition for complete health.

The Federal Government should only appropriate for those interests which are purely of national concern and clearly within the purposes for which the federal union was established.—Hon. Frank O. Lowden.

[So much for the bait of "Federal Aid."—Ed.]

THE NEW TUBERCULOSIS SEAL

The little Tuberculosis Christmas Seal has become familiar to millions of people throughout the United States, including hundreds of thousands of persons in Cook County. It has been largely responsible for the increase in health activities, which in turn have been the means of reducing the death rate from tuberculosis by 50 percent in the past 16 years.

Like bees, they are small, but do a tremendous amount of work, because so many of them work harmoniously together.



In Cook County, 22 public health nurses, assisted by doctors and other health workers administering 16 health centers, monthly chest clinics, weekly infant welfare clinics, school dental clinics and general school nursing, besides thousands of home visits and constant educational work, have been provided by these little seals.

During the month of December, millions of Christmas Seals will make their appearance in Chicago and Cook County. They will be sent to you through the mail and will be on sale in the department stores, drug stores, hotels and public buildings; they will be sold also in industrial plants and factories and in many schools of the county.

The great work which has been carried on in this way can not stop—every penny possible must be collected in order that the growing health program of The Chicago Tuberculosis Institute may be developed for the coming year.

PARATHYROID TETANY AND EPILEPSY

The observation that experiment animals, whose entire thyroid glands, including the parathyroid bodies, have been removed, die in tetanic convulsions and that this result will occur even if a portion of the thyroid itself has been retained, has led to the conclusion that the tetanic or epileptiform convulsions are due to the absence of the parathyroids which, it was concluded, exerted some influence in preventing such untoward accidents.

The particular nature of this function is twofold. Either it might be thought that the parathyroids contribute some substance (internal secretion) to the blood, which is necessary for life and in the absence of which the animal quickly dies with either symptoms of tetany or of severe depression; or, then, it might be possible that the parathyroid causes the removal of some toxic substance from the blood, the accumulation of which, after parathyroidectomy, produces the characteristic symptoms.

The first possibility has been disproved and it is now considered that the parathyroids are not organs with internal secretion. On the other hand, many if not all of the symptoms and other phenomena can be explained on the basis of an intoxication following parathyroid removal.

In following this line of reasoning, L. R. Dragstedt (*Jour. A. M. A.*, Nov. 4, 1922, p. 1593; *Amer. Jour. Physiol.*, Feb., 1923; and elsewhere) has found experimentally that the intoxication that is normally controlled by the parathyroids, but which takes place when these bodies have been removed, originates in the intestinal tract after the ingestion of a diet rich in protein of animal origin. Such a diet leads to the development of a bacterial flora almost exclusively proteolytic in character, and the consequent production of large amounts of toxic amines. On the other hand, a carbohydrate diet, more particularly one containing definite amounts of either lactose or dextrose, produces a change in bacterial types so that the intestinal flora becomes practically entirely fermentative or aciduric. Dragstedt concludes that parathyroid tetany or depres-

sion is due to an intoxication; that the toxic substances come chiefly from the gastrointestinal tract and are probably for the most part protein-split products of the nature of amines.

The function of the parathyroid glands, therefore, is, to prevent intoxication by these poisons, and not, to furnish a hormone necessary for life—according to Dragstedt.

After removal of the parathyroids, animals may be kept alive indefinitely, if the intestinal toxemia is prevented by suitable treatment. After about six weeks, the dietary control of animals may be replaced by usual stock diets without developing tetany or depression. From this it may be concluded that some other organ, probably the liver, has taken over the function of the missing tissue. It has been observed that, in parathyroidectomized animals, injury to the liver resulted in attacks of tetany exactly like that following parathyroidectomy. The animals remain in a state of sensitive balance and apparently small accidents, dietetic indiscretions, and so forth, may occasion violent epileptiform convulsions or coarse jerking movements. The occurrence of constipation may have the same effect. An exceedingly hot day, excessive exercise, excitement or the occurrence of an infection has caused such recovered animals to be severely ill.

All this seems to us to have an important bearing upon the clinical problems presented by epileptics. Certain other investigations of Doctor Dragstedt's and his associates have shown that the function of the parathyroid glands is in some way concerned in the occurrence or prevention of epileptic and epileptiform convulsions. Clinical observation shows that a diet rich in animal proteids, periods of more or less emphatic constipation, excitement, excessive strain, whether mental or physical, and other unusual occurrences are extremely likely to terminate in epileptic attacks, even though the patients may have been entirely free for weeks and months. We have ourselves observed this, time and again, in several patients who are under observation, and have invariably been able to connect the attacks with one or several of the factors enumerated. It appears to us, in these patients, the function of the parathyroids is not carried out sufficiently, and for that reason we are feeding them parathyroid substance. As far as we can judge, the results, so far, are all that could be expected and we hope to have found an additional means for keeping epileptics in a fair balance, in addition to suit-

able feeding and the insistence upon a simple, uneventful mode of living.

A golfer is a man who wears knee pants and seldom works after 2 p. m. in the summer.—Hygeia.

GLAND TRANSPLANTATION

It is unfortunate that the method of gland transplantation, inaugurated by Lydston and developed by Voronoff and others, has been made the subject of such cheap and ribald jokes, not only by reporters to the daily press and the laity in general but also by medical writers. The purpose and the importance of the various procedures aiming to bring about a rejuvenation are of far greater bearing in other directions than in that of virility and potency. This appears clearly in the reports contained in Doctor Hunt's article (p. 862) in which a greater mental and intellectual vigor is emphasized by those on whom he had done the operation. The same thing is described startlingly in Gertrude Atherton's "Black Oxen", where the sexual factor of the "Steinach" rejuvenation is entirely subordinated to the increased mental and intellectual alertness and power.

It strikes us that it would be the part of wisdom, at least for physicians, to refrain from cheap and doubtful jokes and to treat the subject with the seriousness and the honesty that it merits. Surely, if it is possible (as it appears to be from fairly numerous clinical reports) to postpone the deterioration of the mental powers, if it is feasible to prolong the ability to work intellectually by a number of years, the game is truly worth the candle and the means that are employed must be recognized as scientific and proper. It is significant that Voronoff was invited to demonstrate his method before the Thirty-Second Congress of French Surgeons, last October. Quite evidently, the first somewhat startling reaction to the idea is giving place to a more proper and reasonable appreciation of its possibilities.

"THE GENERAL PRACTITIONER"

We have, for long, been conscious of the fact that the department of obstetrics, which is so important a part of the general practitioner's work, and which is so essential for the welfare of the human species, has been somewhat neglected in our reading pages. For this reason, we have asked Doctor Ritzenhouse, who has had a wide and varied experience in practical obstetrics as well as in

teaching, to devote at least a portion of his department each month to the discussion of obstetric problems.

We believe that our readers will approve of this move and that they will accept Doctor Rittenhouse's contributions on obstetrics with satisfaction.

Incidentally, the question of doing something in general medicine, corresponding to Doctor Blech's Surgical Seminar, has occupied us a good deal. We should like to have such a department in which the diagnosis and treatment of puzzling cases might be discussed by our readers under the guidance of a competent clinician. So far, we have not succeeded in making definite plans. Still, we should like to know how our subscribers would react to a "Medical Seminar" and whether they would be willing to participate in this department sufficiently to make it worth while.

He who would walk sanely amid the opposing perils in the path of life always needs a little optimism; he also needs a little pessimism.—Havelock Ellis.

THE LANCET CENTENARY

The issue of October 6, of *The Lancet* (London) is the centenary number, this important medical periodical having been founded in 1823.

Some years ago, while in charge of one of the larger private medical libraries in this country, we had at our disposal complete files of the London *Lancet*, as well as the various other important and old-established periodicals, among which *The American Journal of Medical Sciences* approaches the *Lancet* most closely, with the possible exception of the *Boston Medical and Surgical Journal*. Not only was it interesting to browse in those old volumes, but our investigations frequently obliged us to go back to them for the purpose of historical study.

Having made the acquaintance of the *Lancet* actually beginning with Volume One, we feel a sort of personal interest in its welfare and we offer our sincere and cordial good wishes for its continued and successful continuation in the splendid work that it has accomplished and is doing.

Vivat, crescat, floreat!

RENEW YOUR SUBSCRIPTION

With this issue of *CLINICAL MEDICINE*, another volume of the Journal is completed and preparations are made for Volume 31, which

will commence with the January, 1924, issue. We have just paid our respects and offered our congratulations and good wishes to the London *Lancet*, the oldest medical journal in existence, and we are wondering whether, seventy years from now, *THE AMERICAN JOURNAL OF CLINICAL MEDICINE* will still carry on. Of course, we shall not be there to see it and, as far as that is concerned, we might be forgiven for expressing an attitude of "I should worry!" And, yet, nothing is further from our thoughts than that position. We certainly want *CLINICAL MEDICINE* to continue its mission of service to its subscribers; we want it to grow in quantity and in quality, as also in the number of its subscribers.

Conducting a medical journal can not be held to be so simple a matter as might appear. Certainly it is not a one man's job. The editor may prepare a lot of editorial articles; he may review books and write abstracts; he may comment upon correspondences submitted and upon opinions expressed in leading articles. Further than that, he can hardly go. For much of the reading matter, the journal depends upon its friends to submit articles, dealing with work that they have done, with researches with which they are interested, with things they hope to accomplish.

Then, also, the journal depends for its continued existence upon two sources of revenue, the importance of which is closely interlocked. We believe that everybody understands that the subscription price of any periodical is not nearly sufficient to pay for the expense of getting out the journal. The actual money that talks, the essential revenue, is derived from the advertisers. However, the value of a journal as an advertising medium and the fees that can be charged for advertisements depend upon the number of subscribers whom the periodical serves. Consequently, the more paid-up subscribers the journal possesses, the better it can serve them, not only in the matter of original contributions but also in the direction, no less vital, of advertisements. For, it stands to reason that the advertising pages form a buyer's guide to which the subscribers turn with interest and which they utilize when they are in need of merchandise required by their particular work.

So, then, *THE AMERICAN JOURNAL OF CLINICAL MEDICINE* wants subscribers, many of them, just as it invites advertisers to utilize its pages. *CLINICAL MEDICINE* does not wish to force itself upon physicians; and those, whose subscriptions have run out or who do not wish to renew, will place us under obliga-

tion by informing us to that effect. On the other hand, if CLINICAL MEDICINE serves you, if you have found instruction, useful hints and entertainment in its pages, it is only fair to ask you to renew your subscription promptly, not to wait for a statement but to send in your three dollars for the year 1924; or, better, five dollars for the next two years.

The old Romans had a proverb which is still in current use, "*manus manum lavat*"—one hand washes the other. Here, as in all everyday affairs, relations are mutual. Our subscribers want our services. We are glad to give them, but we ask them to reciprocate in the matter of good will, in the form of contributions and in monetary consideration to the amount of three dollars, U. S. coinage, or its equivalent. Will you send us your check today? Thank you.

We ring the bells and we raise the strain,
We hang up garlands everywhere
And bid the tapers twinkle fair.
And feast and frolic—and then we go
Back to the same old lives again.
—Susan Coolidge.

"THE GOODSPEED NEW TESTAMENT"

Many attempts have been made in recent years to produce translations of the Scriptures that are exact and based on the most authoritative texts obtainable. Biblical scholars, unfortunately, are not always agreed as to the correctness of the texts and the laity appears to have a sentimental preference for the St. James version, the peculiar language of which seems to us to be particularly suitable as a vehicle for the sacred text. We are apt to forget that the St. James version is a translation, just as is that according to Luther (in German) or the text used in the Huguenot churches (in French), and so forth. Even the "Vulgata", which many of us like to consult for the elucidation of some obscure passages, is a translation, although a far older one than the St. James version.

For these reasons, there can be nothing unbecoming in the attempt to produce new translations, especially in view of the fact that Biblical study has discovered much that shows some of the passages in almost all existing translations to have been erroneously rendered. Furthermore, many there are to whom the stilted, old-fashioned language of the St. James version is a stumbling block, who are

not subject to the sentimental associations but who would like to read the story of the Bible in modern every-day English. Such a thing is further justified because, as we are told, the original manuscripts of the New Testament books were written, not in classical Greek, but in the language of the common people, of *hoi polloi*.

The Reviewer was so greatly interested in the version of the New Testament prepared by Professor Goodspeed, who is one of the foremost New Testament scholars in this country and one of the most accomplished teachers of Greek, that, having read the passages reproduced in the prospectus issued by the University of Chicago Press, he promptly bought a book and is reading it with much enjoyment.

Professor Goodspeed's translation of the New Testament will appeal to many. We believe that, among our colleagues, more than one will thank us for calling his attention to it and that it will be appreciated throughout the English-speaking world by those who are not bound by form but desire to have as exact a reproduction of the original as can be obtained.

FAMINE DISEASES

The description given by Doctor Martin (p. 873) of his experiences and observations of what may be designated as famine deficiency diseases, because of the starvation diet that had to be resorted to during the War, is novel and unusual in so far as the occurrence of polyuria followed by edema, both being induced by a miserably inefficient diet in famine times, has hitherto not been recorded. We are familiar with typhus (spotted fever) and dysentery, both of which have frequently been observed during all wars and have been described graphically, for instance, by August Hirsch ("Geographical and Historical Pathology", London, New Sydenham Society, 1883). In 1848, a period of famine in Silesia, but without war, was accompanied by a widespread epidemic of the so-called famine typhus, concerning which Virchow reported to the Prussian Diet. During the war between the States, a particularly violent form of dysentery occurred very frequently and left its traces in its unfortunate victims to such an extent that we find reminders of it in the veterans of that war to this day.

In all these reports, however, the appearance of polyuria followed by the edema is not mentioned. And we are inclined to accept

The New Testament. An American Translation. By Edgar J. Goodspeed. Chicago: The University of Chicago Press. 1923. Price \$3.00, postpaid \$3.12.

Doctor Martin's opinion, when he attributes the occurrence of the vasomotor disturbances responsible for both, the polyuria and the edema, to the starvation diet which consisted for weeks and months exclusively of turnips. If it had been possible to resort to beets or carrots and to potatoes, there would, undoubtedly, have been a serious deficiency in nutrition, but, at any rate, the more generous nutrient qualities of these vegetables might have prevented such serious disturbances as those described by Doctor Martin. Even today, there are large districts in which the people are not much better off than in wartime. Truly, the War has cost the German people dear and they are by no means through paying for it.

CALCIUM SULPHIDE

To physicians who have employed calcium sulphide clinically, the reminiscences in the article contributed by Doctor Lawrence (p. 880) are of interest. The claims that have been made for this drug have been denied by numerous therapeutists, and Bartholow, for instance, was very careful to avoid making direct statements concerning the usefulness of the drug. So he says: "A succession of common boils, scrofulous and other abscesses, are, *it is said*, made to mature, and the expulsion of the pus is favored by the use of the sulphides. When abscesses are threatened, and before matter is formed, the sulphides, *it is claimed*, may cause them to abort. Small doses (gr. ss to gr. j) frequently repeated (every hour or two) *are said to be* most effective under these circumstances."

Others are more definite. Many readers of CLINICAL MEDICINE will remember the reports presented by W. C. Goodwin (this Journal, 1911, p. 55, and 1917, p. 361) concerning the excellent and lasting action of calcium sulphide in tuberculosis. Ussher's experiences in the exanthemas, including smallpox, must be accepted as conclusive. French authors have praised the drug highly in the treatment of diphtheria, whooping cough, typhoid fever, erysipelas and other affections. According to Shoemaker, calcium sulphide is given with good effect in ophthalmia and sores of scrofulous children. In measles and scarlatina, it apparently abridges the course of the fever. In pertussis, it reduced the number and severity of paroxysms. Shoemaker also finds the drug useful on styes, acne and furuncles. Wilcox finds it of use in the prevention and treatment of boils, carbuncles, abscesses, and

says that it has been employed with advantage in acne, eczema, chronic conjunctivitis and ulcers in ill-nourished children, of suppuration of tuberculous glands and acute tonsillitis, especially in strumous patients.

Aside from the demonstrated utility of calcium sulphide in numerous cases of infectious diseases, its efficacy as an antidote for mercuric chloride poisoning has been observed and proved by J. H. Wilms and by T. A. Carter.

We do not remember ever having seen or read of a satisfactory explanation of the antibacterial or antitoxic action of calcium sulphide. It has been suggested, jokingly, that no self-respecting germ would remain in the blood current saturated with this ill-smelling preparation. Still, sulphuretted hydrogen has distinct disinfecting properties and we believe that it is rational to explain the *modus operandi* of calcium sulphide on the basis of this action of H_2S . However, that may be, calcium sulphide is an extremely valuable remedy and one that may ward off many serious attacks of bacterial infection and profound intoxication.

PHYSICIAN BOOTLEGGERS

Doctor Keating (p. 859) refers to the report of the prohibition situation for 1922, reproducing from it the statement that, in that year, physicians were responsible for the sale of seven million dollars' worth of whisky. With the exception of those physicians who believe that, at times, whisky is a valuable remedy and who should not be criticized and interfered with on that score, the writing of whisky prescriptions by physicians, Doctor Keating says, is the greatest disgrace that has ever befallen the medical profession.

Quite recent newspaper reports declare that, in the twelve months ending last June, no fewer than 11,268,469 "liquor" prescriptions were duly signed by practicing physicians and filed by druggists in twenty-seven states and, Porto Rico, Hawaii and the District of Columbia. New York led all the states in the number of booze prescriptions filled (the newspaper in question states), Illinois being second and California third. The paper continues: "Meantime, the home-brew artist and the bootlegger were contributing their share toward the alleviation of whatever maladies booze is supposed to alleviate. It is significant that two-thirds of the physicians of the country do not find in their practice any of those mysterious maladies and so do not pre-

[Concluded on page 883]

Leading Articles

The Daily Hospital Clinic for Private Patients

By EMMET KEATING, Chicago, Illinois

A LONG-STANDING belief in the value, to physicians and their patients, of a clinic in every hospital, for pay as well as for charity patients, prompted me to urge such a measure to the staff of the Norwegian-American Hospital, in 1920. A clinic where no physician in good standing would be barred from presenting his patients, but would be urged to do so. That clinic was established and is a success. It is held daily from 11:00 a. m. to 12:00 o'clock, noon. There is nothing compulsory about the attendance, which ranges from a half dozen physicians to thirty or more. It was established as a necessity for the improvement of physicians in the type of service they are able to render their patients; for specialists as well as for general practitioners.

For years, the general practitioner, in the papers and discussions of medical and surgical gatherings, has been accused, berated and implored. He has not raised a voice either in agreement or protest. Why? He has never had an opportunity. He has not been considered worthy of a place on any of the programs. The specialists have monopolized the field. They are organized and have something definite to say. The general practitioners are not organized and, if they have anything definite to say, they are too modest and retiring to say it.

Standardization a Fetish If Carried Too Far

Another necessity is now in evidence. A necessity which will shortly be so compelling that the clinic will be a feature of every hospital; a feature as commonplace as a sterilizer for the operating rooms. The pendulum of standardization may be swinging too far; but, as I see it, it is the result of a desire on the part of men of high ideals to force the general practitioner to raise his standards.

The preserving of a certain amount of records pertaining to the daily activities of any

hospital is quite right and proper, but, the extent to which it is being carried in some hospitals, which are trying to meet not high ideals but insane ideals, is appalling. It is a useless tax on human energy and demands a storage space that could be devoted to a better use.

Those physicians, who are more or less constantly engaged in teaching, are forced to keep themselves more nearly in touch with the progress and changes in the art and practice of medicine than is the physician who goes his lonely way without let or hindrance from the prompting or restraining influence of close associates.

It is certain that, whatever division of the practice of medicine he is presenting to graduate or undergraduate students, such work will increase his ability as a physician.

His duties make it necessary for him to be diligent in his study of what time and experience have standardized, and alert to the newer things in diagnosis and treatment, which may or may not survive the test of time.

The presentation of a patient, the argument for the establishment of a diagnosis, the discussion of the pathology, the review of the symptoms, the prognosis, the treatment and the sequelæ of the disease from which the patient suffers, require the practicing physician to do exactly the same thing as the professors in the medical school. That is, he must carefully reread what has been painstakingly set forth in logical order in the standard textbooks. He has the same privilege of supplementing this knowledge with whatever new or revised opinions are to be found in current medical literature.

If any physician sitting in the seat of the scornful says that this is a fine Utopian but impractical idea, impossible of performance, because the busy general practitioner has no time to indulge in a study of this kind, he is admitting that the general practitioner makes no pretense to give his patients the service

*Read before the American Medical Editors' Association, meeting in Chicago, Oct. 25 and 26, 1923.

that they rightly expect him to be able to render.

Constant Study Requisite

After our initial endeavors in the practice of medicine, there is an alarming tendency to turn our backs completely upon the textbooks which were so energetically studied during our student career, and depend for our progress upon the various medical periodicals, whose articles, of course, take it for granted that our knowledge of what has so long been established is fresh and green.

Unfortunately, unless constantly reviewed, the most profound comprehension of any subject becomes faint and is sooner or later lost from our store of knowledge.

Objections to Textbooks "As Is"

As medical editors, it might be interesting for you to hear that many of us question the advisability of the present fashion in textbooks of a large number of cumbersome volumes which contain so much of repetition and padding, and in many cases statements given as facts which are not borne out by actual practice. This shortcoming is partly due to the fact that these volumes are made up of the contributions of men who have specialized in their particular fields, some of them never having had that broad general experience which militates against the danger of narrow views.

As an illustration, I would cite that, in one of our most recent and highly lauded textbooks on medicine, the contagiousness of pneumonia is overemphasized, the writer basing his conclusions upon the great incidence of pneumonia in the army camps of the World War. A year ago, at a meeting of the Physicians' Fellowship Club, this belief was questioned, and some twenty men, whose practice extended over a period of from fifteen to thirty years, were unable to support the author's position. Two or three of those who took part in the discussion recalled that, in one or two instances, pneumonia had attacked a second person in the same family. They were not, however, willing to admit that it was the result of a transmitted infection. Health departments have made pneumonia a reportable disease; have established strict quarantine regulations which work unnecessary financial hardship in cases where hospital patients, occupying wards or semiprivate rooms and who, during their stay, contract pneumonia, are compelled to go into private rooms under the care of a special nurse or trust their lives to municipal hospitalization.

Teaching Helps Doctor to Study

If it were possible for all physicians to be

teachers for six to nine months of each year, the public would be better served; but this is not possible. Positions in medical schools are limited. The only opportunity the general practitioner has of availing himself of a similar opportunity is in the daily hospital clinic. It is not meant that he shall appear with the regularity of the teacher in the medical school, but the daily clinic will give each physician the opportunity to present at least one case per month.

Few men have the initiative to continue their studies when they are not expected to display their wares before their fellows.

Indolence follows hard upon forgetfulness, and the ability to ferret out evidence of departure from the normal, instead of gaining strength from experience and observation, disappears, and the practice of medicine becomes merely the treatment of the patient's voiced complaints.

The old fashioned family doctor dies hard. Instead of preserving and improving upon his many virtues, his limitations and shortcomings are treasured by his successors, and carping criticism and levity are aimed at those who take and preserve painstaking histories and avail themselves of the many mechanical diagnostic aids that are the everyday working tools of the specialists.

Quantity production and low selling price bring financial reward to the manufacturer and great benefits to the purchasers of automobiles, but this principle, which has brought fame and fortune to one man, and happiness and prosperity to many more, can not be applied to the practice of medicine, if patients are to obtain the service to which they are entitled.

The Problem of the "Chronics"

Not many years ago, physicians were so busy treating typhoid fever and other controllable diseases that they had little time or energy to devote to those patients who were not acutely ill. Their attitude towards the ambulatory patient did not stop at indifference, but was one of abhorrence and contempt for the unfortunate people who were known as chronics. If the doctor saw one of them approaching his office, he would hurriedly leave by way of the back door, to evade listening to what he looked upon as dreary and useless complaining.

Now, the doctor is complaining because, preventive medicine and ill-advised charity having deprived him of a large number of those suffering from acute diseases, he finds himself without a practice.

The people whom he ignored and to whom he gave no hope are, as a last resort, visiting the chiropractor, the osteopath, the Christian Scientist. The majority of these people are really ill. It is worth our while, and they are willing to pay for the time it takes to find out what is the matter with them. These are the patients who demand the most careful study and a training in diagnosis on the part of the physician that is not to be secured in his work of treating acute diseases.

In the care of acute diseases, in the majority of cases, the diagnosis is easily made and the main efforts and thoughts of the physician are towards the proper treatment. Once he has determined what to him seems best, it becomes a matter of routine which does not further tax his mental resources. The greatest strain demanded is the physical one of making house calls. It is the easiest type of practice and is inclined to reduce the general efficiency of the physician who has much of it to do.

The activity and energy displayed by the medical profession in the advancement of preventive medicine has, to a very large extent, curtailed the ravages of the acute infections.

As a source of income, the care of acute diseases is fast vanishing. The greatest prevalence is among the least enlightened and the least able to pay. In twenty years' practice in the city of Chicago, I have not seen a dozen cases of typhoid fever.

The Spectre of State Medicine

Every right minded physician rejoices that ways and means have been found to so wonderfully reduce the prevalence of acute diseases, but he deeply resents the increasing tendency of public health departments to engage in the practice of medicine. Too much police power for health departments means state medicine and paternalism. Large appropriations from municipalities give them greater political power and increase burdensome taxation. He resents the activities of charitable agencies, that, in order to keep themselves going, encourage pauperism and secure free medical attention for people who are able to pay. He resents the cupidity of those physicians who do the work for such agencies and violate the ages-long principle that the laborer is worthy of his hire.

There has always been a widespread public opinion that doctors enjoy large incomes. The doctors know better.

Whisky Prescriptions

A few days ago, there appeared in the newspapers, as part of the report of the prohibition

situation for 1922, the statement that, in Illinois alone, physicians were responsible for the sale of seven million dollars worth of whisky. There are a few physicians who believe that whisky is at times a valuable remedy. No criticism can be aimed at them for using it when they think that it is for the patient's good. With these exceptions, the writing of whisky prescriptions by physicians is the greatest disgrace that has ever befallen the medical profession. Is it necessary for any physician who has spent the time, money and effort to acquire a fine medical education to become a bartender for a blind pig? No. If the old sources of income have disappeared, let us bear in mind that an increasing number of intelligent people are no longer content to go limping through life bearing ills that may, with the advice and counsel of capable physicians, in many cases be permanently cured, and, where a permanent cure is impossible, such counsel and advice will greatly lessen their distress and permit them to continue their share to the world's work.

Preventive Medicine

How times have changed. Think of the multitude of agencies that are devoting their sole attention to the conservation of health. It is a sad commentary that a very large number of physicians have not, as yet, realized that the human machine is in constant need of supervision and repair. Neither have they realized that the understanding necessary to such intelligent care means a greater expenditure of time for the individual patient and the use of the laboratory. This means that the patients must pay more than they have ever done for the inefficient service that was formerly rendered. Many general practitioners, with the false notion that only a few people can afford this service, go on in the same old way, scratching the surface and missing the opportunity to restore the patient to health.

In this day of high wages and high cost of living, the individual who cannot work soon becomes a burden upon the community. Restore his health, and he will soon be able, not only to take care of himself, but to pay the physician a just and fair amount. Until more general practitioners understand this, the education of the public will be long delayed. To the public, a doctor is a doctor, and the one who works cheap and does little appeals to them as being just as good as the physician who gives them real service.

Importance of the Teaching Clinic

The clinic in every hospital is the one great teaching force that will raise the standard

of every doctor. He will learn that, while he cannot neglect the many things his five senses will be able to tell him, he must back up this information with scientific diagnostic aids.

How shall such a clinic be conducted? Briefly, the matter should be brought before the staff, and they should be made to understand that, unless they are willing to do their part, both as audience and teacher, it cannot be made a success. The staff should elect as Director of the Clinic a man who is capable of arranging programs; who has the persuasive power to get his fellows to present cases, and who is willing to sacrifice his own time for the good of the cause. The success of the clinic, among other things, will necessitate his unfailing attendance during the clinic hour. If it is to be a success he will not be able to absent himself many times. While the main burden of the presentation of subjects and patients should be placed upon the attending and consulting staff, the Director should secure at different times men of prominence who, from their long and continuous service as teachers in medical schools, are able more brilliantly to set forth the subject

to be taught, than is the general practitioner. From these men, the amateurs in teaching will not only learn valuable things in medicine and surgery, but their own teaching ability will be greatly enhanced.

It is the custom at the Norwegian-American Clinic, when the physician has completed his presentation, for the Director of the Clinic to specifically ask each man in the audience to express his views upon the subject. Long speeches are discountenanced. Whatever he has to say must be short and to the point. By this method, distasteful and useless controversies are avoided, and no one is slighted.

In addition to the benefits to the public and the physician, the Daily Hospital Clinic for private patients will banish the old-time belief that only charity cases can be utilized for teaching purposes.

Clinics of this kind will not need the fostering care of state or national organizations to keep them going. Each one will be a complete unit in itself and will give an equal opportunity to each and every physician in that particular community.

2757 Fullerton Ave.

Further Experiences in Gland Transplantation

By H. LYONS HUNT, New York City

SOIOLOGICALLY, man is a creature of habit and of environment. Physiologically, he may be called the product of his glands of internal secretion.

Long before Brown-Séquard, and long before anything was even dreamed of endocrinology, the Chinese, Roman, and Arabian physicians, in fact, physicians of all times and climes recommended the injections of testicles from various animals as a remedy for sexual impotence.

It was in 1849 that Berthold carried out the pioneer experiment of removing the testes of four roosters and transplanting them under the skin. It was Berthold's idea to test whether a gland with a definite external secretion, but which had powers over the whole body, could not be shown, by a clean-cut experiment, to possess an internal secretion.

Berthold succeeded. Without precise scientific knowledge, he was the first to prove the existence and significance of what we now recognize as an internal secretion.

Forty years passed before the implication of Berthold's studies were rediscovered by Charles Edward Brown-Séquard. (1817-1894.)

Brown-Séquard is to be regarded as the principal founder of the doctrine of internal secretions. In 1869, he first expressed the idea that all glands, whether with or without ducts, supplied to the blood a substance the deficiency of which produced pathologic disturbances.

In 1889, Brown-Séquard, at the age of seventy-two, announced the rejuvenating effects of self-experimentation with the injection of testicular extract from lambs. According to his startling reports, he experienced a marked improvement in mental activity, physical strength, bowel action, and increased appetite. The effects were reported to the Society of Biology of Paris, on June 1, 1889. The testicular juices from lambs, dogs and other lower animals, hypodermically injected into men, Brown-Séquard stated, had "a definite dynamogenic action upon the patient, stimulating his general health, muscular power, and mental activity".

The Brown-Séquard experiment is to be

*Read at the American Medical Editors' Association meeting, Chicago, Oct. 25-26, 1923.

recognized as the pioneer work in organotherapy. His principle was correct but, as Paul Kammerer notes, he was on the wrong track, in so far as the effects of the injections cannot be lasting and signify strictly no fundamental renovation of the organism, but at most an improvement.

Modern Research

G. Frank Lydston, of Chicago, (Op. C. T.), was the first to perform gland transplantation on human beings. The medical profession took notice of Lydston's work only when the newspapers of the whole world began to give sensational reports, and they joined in the more or less witty jokes about the matter.

Victor G. Vecki declares that, notwithstanding dogmatic contradictions and ridicule, the effects of properly and successfully performed transplantations are unmistakable.

Stanley had the ingenious idea of simplifying the operation of transplantation and devised a method of injecting the ram's semi-solid testicular substance subcutaneously, with an appropriate syringe armed with a large-caliber needle. This procedure is easily done and painless. Vecki has repeatedly seen good effects upon the sexual power, notably in a few cases where suggestion could be absolutely excluded.

The opinions in regard to the Steinach operation differ. Some operators are enthusiastic; some, doubtful; and some treat it with contempt.

Steinach proceeds from the theory that the sex gland increases in activity when the vas deferens is ligated. With advancing age, the sex gland gradually loses its internal secretion, and its diminished function is restored by the ligation of the vas deferens. The senile sex gland may be stimulated by other methods, for instance, by chemical means and x-ray treatment. But, in Steinach's opinion, the surgical method is the easiest and most dependable.

Steinach's claims, though strongly endorsed by Benjamin, are flatly contradicted by such investigators as H. Stieve, Karl Sternberg, Prof. M. Zeissl and many others.

B. Romeis, discussing the rejuvenation hypothesis of Steinach, says that he compared the histological picture of the testicles before and after ligation of the vas deferens; but no increase in the interstitial cells was found, and the sexual desire was not increased.

W. Haubenreisser analyzes the results to date, of transplantation, Röntgen irradiation of the testicles, and the two Steinach methods of ligating the vas deferens. Not the slightest

influence from the irradiation could be detected, and only one of the patients showed improvement. This was after transplantation of the testicular tissue; which, in the author's opinion, is the only method which offers results.

While not agreeing with the therapeutic technic of Steinach, the application of which seems too much like whipping a tired horse, one must be prejudiced, indeed, to withhold the honors of genius which are rightfully his for his demonstrative work in animal gland transplantation and sex transformation.

The Purpose of Transplantation

In reviewing both, the present literature as well as the history of gland transplantation, one is astounded to note how very indefinite and ill-defined has been the road of inquiry of those who have advocated this form of surgical therapeutics. Little effort seems to have been made to solve the problems which present themselves and which must determine:

- 1—The kind of person requiring a gland,
- 2—The kind of gland to transplant,
- 3—The endocrine deficiency of the patient,
- 4—The amount of gland tissue necessary,
- 5—The duration of life of the transplanted gland,
- 6—Grouping of the donor animal and the receiving human subject,
- 7—The cause of gland anaphylaxis,
- 8—The cause of gland non-take.

Relative to the kind of person requiring gland transplant, we have: The patient suffering from nervous, muscular or general debility, the eunuchoid, the pervert, women possessing infantile generative organs, women with ovarian dysmenorrhea, individuals who are senile or prematurely senile, cases of high blood pressure, functional impotence of the male, and frigidity and certain varieties of sterility in the female. All these are pre-eminently cases for surgical gland therapeutics.

Recently, I had a letter from the resident physician in Aix-Les-Bains, requesting knowledge of my transplantation technic, because, in his experience in administering gland extracts to rheumatics, he had concluded that benefit would be derived in a greater degree by gland transplantation. In this connection, I may say that not only rheumatism but neuritis yields to this operative procedure in 80 percent of the cases.

In regard to the kind of gland to transplant, my experience has been chiefly with the sheep's ovaries and ram's testicles. I have also used the cow's pregnant ovary and the young bull's testicle. I have, however, found the ram and

sheep to be more suitable.

In certain cases of non-take, I have felt that the rules of blood grouping between man and man should apply between man and animal. Since the beginning of the preparation of this article, my chemist has reported that he has originated a method to blood-group the animal donor and the human recipient of the gland. If such is the case, I feel that we are on a firmer footing as far as gland-take prognosis goes.

Our experiments with guinea-pigs point to the possibility of, at a future time, judging gland dosage accurately. In a group of guinea-pigs, we are transplanting testicular and ovarian gland tissue in graduating amounts, comparing the amounts of tissue transplanted to the weight of the animal. Dosage will be the relative amount that can be transplanted without any of the tissue undergoing necrosis.

Animal-gland animal experimentation is in its infancy. We are noting the effects and are endeavoring to transplant pancreatic gland tissue in dogs, in which we produce diabetes with phlorizin. We are also transplanting pituitary tissue, suprarenal gland tissue, thymus and thyroid glandular tissue, as well as tissue of the sex glands.

Another question that cannot be answered definitely has reference to the duration of the effects of gland transplants. The first gland transplantation that I performed was done three years ago. Several months ago, I wrote to the patient, who had originally applied for operation because of total impotence of seven years duration. I quote from his letter: "In regard to your inquiry, will state that I have no trouble to have an erection and normal sexual intercourse at any time I desire." We may conclude, therefore, that the effects of a gland can last at least three years. Whether the effect will continue longer, I have no way of knowing.

Personal Observations

Up to the present time, I have performed eighty-four gland transplantations. Of this number, only eight have failed to prove markedly successful. Two showed an anaphylactic reaction and six were non-takes.

I will not weary you with taking you over the histories and results of the eighty-four cases. I will, however, with a little more of your indulgence, read you excerpts of letters I have received from patients to demonstrate the results of gland transplants for the various therapeutic indications.

Case No. 1, a woman of thirty-nine years of

age, who from the age of fourteen menstruated irregularly and with such pain that she was given chloroform, ether, and morphine at the menstrual periods. A gland was transplanted six months ago. I received the following letter three weeks after the transplantation: "Just a line to let you know that the menstruation came and went with no sign of pain. This appears more in the light of a miracle to one who has suffered the pains of child-birth every month for twenty-five years, etc., etc."

In regard to the effect of a gland in cases of actual senility, the following is from a lady in her seventy-first year:

"Almost every day since the first week after the operation, some new feature of rejuvenation of mind or body has presented itself as evidence that the gland transplantation was a success in my case. I truly feel that the stone has been rolled away from the grave of my youth and there has come forth a live and vigorous spirit which in activity and alertness is a pretty good counterfeit of myself before the 'passing out'. And, judging from the signs I have already noticed and from the comments of my friends, I am convinced that the evidence of the years is being contradicted at least in a measure by my general appearance as well as in my feeling of renewed vitality.

"It is difficult for me calmly to mention the different stages of improvement which I sense every day. I want to write a bookful of underscored, exclamatory ravings.

"Two days after the operation, I found myself walking along the street more energetically than usual. I soon found that I could go up stairs with less and less discomfort. From taking a car for half a dozen blocks, I now walk a mile or two, after being steadily on my feet for at least eleven hours with less than half an hour's rest at noon. Instead of spending most of my forty-five minute luncheon time in the recreation room at the department store where I work, I go out for fresh air and to revel in my new life. The sheep may miss its gland; but I'm sure that I am getting more benefit from it than the animal ever could.

"My memory is greatly improved. My deafness has entirely disappeared. My eyesight has also improved. I observe more keenly than I did. My eyes are not as dull as they used to be. My complexion is better and my digestion is perfect. My flesh is firmer and my circulation improved, etc., etc."

In sexual impotence, I may state that transplantation is successful in ninety percent of the cases. The following is one selected at random (as, in fact, all the letters I am reading have been) and is typical of the improvement noted:

"In reference to gland transplantation in my case, permit me to submit the following comment:

"At the age of forty-eight, my health in

general was good with the exception of absolute sexual impotency which had lasted for about two years. During this time, no erection had taken place at all. I made every effort to overcome this condition by careful living, plenty of out-door exercise, cold bath every morning, etc., etc., but there was no sign of improvement. During the three or four years just preceding this condition, I had suffered more or less from a lack of sexual vigor. I had become somewhat despondent and did not seem to take the proper interest in life or business.

"The gland transplantation took place about July 17th, 1923. About four days later, I noticed an erection upon awakening in the morning. Erections began to appear regularly for a while, then failed to appear for a short time. After this apparent reaction, they again took place regularly and continue to do so at the present time. I am again able to enjoy a moderate amount of sexual intercourse, and, while I have not the vigor of early manhood, I consider my condition at the present time very satisfactory for a man of my age.

"I may also add that I have experienced no ill effects at all."

I also quote from the diary of a New York clergyman. The diary was started after the operation, at my request:

"Thursday, June 28. Operation 4:30 P. M. —Non-painful, returned home in a taxi-cab; took to bed and used icebag for two days.

"Saturday, June 30.—Natural erection noticed in the morning at rising—the first in five years.

"Monday, July 2.—Awoke in the morning. Noticed a stronger erection than previously.

"Wednesday, July 4.—Morning erection with firmness and muscular strength. Penis thrilled with blood warmth and feeling of passion. A noticeable enlargement of the organ.

"Friday, July 6.—Morning erection. Privates flushed with blood life, and feeling of passion. Appetite increasing, sleeping natural, rest pleasant, vital strength returning.

"Monday, July 9.—Improvement of vision. Passion asserting itself. Erection on thought of sex. Privates warm and flushed feeling of circulation. Moving about and performing of usual duties with vim, strength, and volition.

"Saturday, July 14.—Wound healed. A general improvement physically and mentally. Condition of system, feelings and physical habits and actions of privates equal to fifteen years previous.

"I feel a general improvement in my whole system, and physical actions and responses of youthful periods and experiences have constantly manifested themselves. These were noticeable within five days after the operation and continue to be present. My vitality, nerve force, and mental action are wonderfully increased, and I feel that many years have been returned to me."

The following is from a married lady, forty-six years of age. Though married many years, she had never become pregnant and

was quite desirous of becoming a mother. I transplanted a gland on June 14, and she became pregnant August 14.

"1.—The Menstrual Flow.—Appeared on the 17th. Lasted four days. Very heavy flow. It used to last two or three days with two days of moderate flow and the third day scanty.

"2.—For sexual intercourse, the desire was decreasing in the last five years, and passion was slow to arouse. Always had difficulty in having an orgasm and it would take at least twenty minutes to attain one. Now passion is easily aroused and an orgasm is had in five minutes.

"3.—I was always tired. I used to wake up in the morning tired and sleepy, with no vitality, and no strength. I had neuritis in my legs and, after walking a mile, I would have pains in my legs so that I could not sleep. Now I wake up before the alarm rings, feel rested and light and enjoy the morning. The neuritis is all gone and I do not feel tired any more. Though I am intensely active and on my feet all day, I feel strong, healthy, and full of vitality. For fifteen years, I have suffered from constipation. Since the operation, my bowels move naturally every day.

"4.—My disposition had changed immensely the last four or five years. I saw myself gradually growing more dull, irritable and critical every day. I seemed to have lost all vivacity and joy of living. Almost since the first day of the operation, I wake up happy in the morning feeling friendly disposed to the world. I feel like singing and dancing and life seems a joy.

"5.—As for looks, my eyes have lost their dull, faded look and are brighter. My face has lost its drawn appearance. My hands were getting old-looking, dry and wrinkled. Now, they look soft and all wrinkles have disappeared. Etc., etc."

That neuritis is improved as well as general debility, I quote from the first and last paragraphs of a letter too long to read through—patient aged fifty:

"My condition up to the time of operation was a serious one. I walked and felt like an old woman of eighty—no strength in the limbs, and it was all I could do to lift myself on to a street car. I was very weak and, when once seated, it was all I could do to get up on my feet again.

"The second week following operation, the condition of my kidneys began to show improvement, also the appetite. First, weary feeling upon getting up in the morning all gone. I had suffered intensely from neuritis night and day for weeks at a time, and often thought that I was going insane. That all passed away. All of a sudden, I realized that my body was getting straight and erect and my step was elastic as of old. Now I am myself again. I am forgetting what it is to be tired. It is now nearly three months, and I am vigorous, strong, and intensely interested in living. . . ."

The following two letters are from men

whom, I am sure, you all know well. One of these is a medical man who holds a chair at the New York Post Graduate Medical School, the other a medical editor, a member of this society:

"1.—Pulse rate dropped from eighty-three to sixty-three.

"2.—A very marked increase in my physical vigor.

"Before the transplantation, I tired easily and recovered slowly from bodily fatigue. This has practically all disappeared. I apparently can do as much as I could thirty years ago, and even if I do get tired, I rest for fifteen minutes and it puts me right again.

"3.—A marked increase in my mental activities. My mind seems now more active than it was at thirty-five years. It has much more to work on now as I have had much valuable experience in the past thirty years. I seem to be able to grasp and solve problems more readily than I could as a young man. It was the diminishing mental and physical vigor which impelled me to take the transplantation. I felt that I was getting to be an old man. The feeling has disappeared and I am always ready for mental or physical work.

"4.—Gradually increasing sexual power. While this was never entirely lost, I felt that it was gradually diminishing. It is just as surely gradually increasing since the transplantation.

"5.—I have been practically bald for many years. The hair is beginning to come in on the bald spot and of its natural color.

"6.—As a young man I used to enjoy cold baths, but for a number of years I have not been able to take these as I did not get the proper reaction. I have gone back to cold baths and get a fine reaction. . . ."

The following is the letter from the medical editor—a man I know you are all acquainted with:

"I am grateful for the beneficial results following your operation of gland transplantation. For many months prior to the operation, I was beginning to lose my usual vim and vitality. I did not have the energy to do my work and really did not care whether school kept or not. I was beginning to realize that a condition simulating physical and mental hebe-

tude was slowly tightening its grasp upon me. Since the operation, I am feeling more like I used to in the days gone by.

"My circulation has improved, my complexion is again ruddy, and I am feeling physically fit again as I did ten years ago. . . ."

I have been particularly pleased to be able to bring to this society my results—not from the fact that it is one of America's greatest medical societies, and not from the fact that it is comprised of learned and polished minds, but because you, who compose the membership of this association, are individually and collectively responsible for the public health of the nation. For, it is the boldness of your pen that guides the thought of the entire medical profession.

Gland transplantation has been ridiculed, held up to censure. It has been made the food for 'salacious jokes, of caustic facetiousness, and of ludicrous contempt.

Those advocating operative gland procedure have been outrageously calumniated and have been called short and ugly names—names intolerable and mean. These defamatory invectives and bitter amplifications have usually emanated from men in our profession as destitute of sincerity as they are improvident of knowledge.

But, it is you who are all powerful, whose just opinion I value, and it is to you that I have brought my proof and my contention for your just comment that, if we are willing to accept as a truth that skin can be grafted and carry on its functions, that cartilage, bone, fat, nerve, and thyroid gland tissue can be transplanted and carry on their intended duties—then common sense, deduction, logic, and reason force the conclusion that sex gland tissues can be grafted or transplanted and carry on their physiological action.

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The Medical Editor's Attitude Toward the Present Trend of Events*

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IT may be questioned whether the present trend of events differs in essentials from the trend of events at almost any time in the last few hundred years and, crossing the

chasm of the middle ages, during the last three hundred years B. C. It may be bromidic and more or less trite to declare that we (not we as a people, as a nation, but we as a profession) live in a period of unrest, disturbed within our ranks and beset from without. We may feel this state of affairs keenly, but the

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student of medical history knows that, even here, the conclusion of the Preacher holds good, that there is nothing new under the sun. As far back as the days of ancient Babylon, and ever since then, physicians have been the ready target of hostile shafts of criticisms, witticisms, sneers, outright condemnation and good-natured banter.

It is a peculiar truism that, now as in times gone, school medicine, the supposed or alleged medical authority, stands more or less unmoved under these varied attacks, as it always had done, condemning that wholeheartedly which does not originate from within its own ranks or for which it had not issued its sacrosanct approval. As, centuries ago, innovations, improvements, condemnations of vicious practices were resisted by school medicine with all the power that the holders of authority could muster, so now it seems to be the easiest way to condemn everything that is not in agreement with the tenets of the so-called regular school.

It always has been hazardous to hold and express opinions at variance with those of "authority". Bodington, of England, paid dearly for his assertion that pulmonary consumption could be treated successfully by rest, proper diet and fresh air. Hahnemann and the Eclectics, who rebelled against the brutal bleeding, puking and purging that was insisted upon by school medicine far into the nineteenth century, were ostracized, condemned, vituperated, designated as quacks, charlatans, knaves, even as the innovators today are. It is a peculiar thing that, as late as 1845, one of the chosen spokesmen of the old medical practice publicly could declare that "medical science does not need, nor is it susceptible to, further improvement or reform". Such smug and fatuous self-complacency surely might cause one to despair, if we did not have the assurance that new things will prevail if they are good, despite all attempts of reactionaries to ignore or to destroy them.

The Physician and the People

The last generation has witnessed a decided modification in the popular attitude toward the medical profession. No longer are the dicta of the medical man, his diagnoses (unexplained) and his orders accepted without comment, but there is a very active and energetic tendency to advance various and insistent whys to the physician's opinions. It seems as though the old-time, if imaginary, infallibility of "the doctor" had come to be doubted seriously and that people insist upon using their own intelligence and prefer actually to consult

with their medical attendant rather than request his orders. The reasons for this are complicated and are partly connected with an active propaganda directed against the medical profession and partly, undoubtedly, due to a misunderstanding of a change in the attitude of physicians themselves who have learned to admit that there are things that they don't know and against which they are powerless.

As a matter of fact, there has never been manifested so much honesty in medical research as there is now. We have come to realize and to admit our limitations. We have learned to grant that there are certain things which, under present conditions, we can not know and can not explain. It is readily to be understood that such an evidence of honesty is taken by some to mean an admission of ignorance, while others accept it as an additional claim to confidence.

There are too many factors at the present time disturbing the even tenor of our ways than that we could discuss them and investigate them in great detail. There truly is an unusual degree of unrest, of dissatisfaction with existing things, of sincere and emphatic desire for something better. Strangely enough, we can not in this instance blame things on the War; for, many of these disturbing elements had their inception long before it and are as much signs of the times as the War itself was.

Mental Therapy

Almost a generation has passed since one of the greatest antagonists of the medical profession arose in the shape of Christian Science which, indeed, was not new by any means but waged war with an intensity and virulence that had never before been attempted in this direction. To be sure, Mesmer, almost a hundred years ago, had utilized certain phenomena, but dimly understood, and had employed mental healing to a degree that was striking. In the seventies and eighties of the last century, various religious institutions of faith healing had been maintained here and there. I remember one in Switzerland where the faithful were treated by fasting and prayer and where the success of the treatment was held to stand in direct proportion to the faith manifested. Mrs. Eddy's success was due, in part, to the fact that she appealed to the educated and that she cleverly mixed the mystical and the religious factors with a bland denial of material imperfections. In her wordy but unmeaning disquisitions, she flattered those who, while fairly well educated, still failed to have acquired a mental balance. If they could

imagine that they understood Mrs. Eddy's verbose discourses, they, naturally, believed themselves wonderfully clever and accordingly persuaded themselves that they derived benefit. Mental healing, we fully understand, has a distinct place in the therapeutic efforts of the physician; and, here as elsewhere, it would have been better to offer less antagonism to the enemy from without, to admit and accept this potent therapeutic force, to make it our own deliberately rather than to oppose and decry it, to declare it vicious—only to be obliged, in the recent past, to admit its basic justice, even though it will never be possible to accept all the absurd frills and clouds with which Christian Science has surrounded it.

Homeopaths and Eclectics

We already referred to the energetic and partly successful reaction against the excessive bleeding, puking and purging to which the unfortunate sick of a hundred years ago were subjected and which were antagonized so fiercely by the Homeopathic and Eclectic schools. In course of time, as was inevitable, that which was good in the tenets of these innovators had to be accepted. The idea of small, frequently repeated active remedies, of single remedies instead of cumbersome mixtures, the employment of drugs that do no harm in reasonable doses, the greater discrimination in the employment of possibly injurious remedies and even some very excellent remedies that these two schools introduced to us—all these things we have to acknowledge, and it has come about that Homeopathic and Eclectic physicians are accepted as reputable practitioners and treated as equals by members of the regular medical profession, providing only that they do not insist upon their sectarian tenets but content themselves with practicing medicine purely for the benefit of the patient.

Mechanotherapy

Then came the tendency to employ mechanical methods of treatment. The hydropathic school is fairly old, so old, in fact, but even the Nestors of our profession can hardly remember its infancy. Closely associated with it was the Swedish massage to which were added other forms of mechanotherapy and out of which grew, in more recent times, the teachings of the osteopathic and of the chiropractic schools. I frankly and willingly apologize to the former for naming the two schools together. In many ways, they undoubtedly do form one group. Still, we all know that the osteopathic school has developed to a considerable degree and its graduates now

are obliged to undergo far more intensive and thorough courses of training and of study than was the case originally. I see the time coming when the osteopathic school will develop still further and merge in the larger medical profession, as had been the case with the Homeopathic and the Eclectic schools.

It is somewhat different with the chiropractors whose teachings are based purely on assertion for which there exists no foundation in normal or pathologic physiology. Indeed, the founder of that school was so frankly and irrevocably opposed to study, to the acquirement of knowledge, that his case is all but hopeless.

The Chiropractic school has two powerful weapons which it utilizes to the fullest possible extent and with a degree of success that is startling and may well shake our confidence in the inherent good sense of man. These two weapons are, first, blatant assertion and, second, clever and persistent advertising. According to Chiropractic "teachings", all diseases are due to the fact that one or another of the nerves leaving the spinal canal are impinged upon. It does not matter what ails you, whether it be an infectious disease, diphtheria, pneumonia, influenza, typhoid fever, yellow fever, smallpox, or lues, the trouble is caused by an impinged nerve and a spinal adjustment will relieve it. Systemic diseases also yield to the marvelous touch of the spinal adjustor. The more serious and hopeless the disease, the better the Chiropractor likes it and the more loudly he claims a success. Even the wart on your nose and the corn on your foot, the denuded state of your cranium, and the synovitis commonly known as housemaid's knee, they all are referred to impinged nerves and all are treated by adjustment.

It is hardly thinkable that the Chiropractors could impress people with their deplorable nonsense, if they did not advertise so cleverly, claim cures so arrogantly and vituperate the medical profession so viciously. Strangely enough, they have some protagonists who should know better and of whose intellectual qualifications we must entertain serious doubts when we hear their spoutings. On the occasion of the last Palmer School of Chiropractic Lyceum which was held in Davenport, Iowa, last June, I think, a well-known Chicago criminal lawyer orated eloquently and vociferously concerning the short-comings of the medical profession and the great merits of Chiropractic. Some of you may have honored me by reading my editorial in regard to this matter in the October issue of CLINICAL

MEDICINE. I took for a text Proverbs 26:5, "Answer a fool according to his folly". Mr. Darrow is particularly incensed, as are, indeed, all irregulars from Christian Science down, at the legal necessity that exists in most states of the Union for passing an examination before you offer your services as a healer of the sick. This legal restriction, unfortunately, affects those most severely whose training has enabled them most efficiently to deal with sick people. It is far less searching, the examinations are far more easy and the license boards less stringent in their demands in the case of irregular cults. Even so, the gentleman whom I referred to just now and all defenders of the irregular cults declaim loudly in favor of so-called medical liberty and against laws that restrict the practice of healing. Yet, these people would, undoubtedly, resent fiercely a provision through which anybody were permitted to run a steam engine or a street car without having passed a searching examination demonstrating his fitness for the work. That legal gentleman referred to would probably refuse to admit anybody to the practice of law without having passed an examination and, undoubtedly, he declaims just as loudly against shyster lawyers as he does against regular physicians. Only, in the two cases, the advantages lie in different directions.

We need hardly talk about naprapaths, naturopaths, nor even need we mention Rogers' autohemic therapy, and Abrams' reduction of all human ailments to three, namely, cancer, tuberculosis and bovine syphilis. What is good in all of these systems of pretended healing is known to us. The rest is chaff.

Some Good in All

There is, however, this to be considered, especially from the viewpoint of the medical editor to whom the practitioners look for expressions of opinion. It can not be denied that, in all these systems of healing by mechanotherapy, there is some good and, in many cases, the means that may be employed to advantage are not fully and sufficiently understood by physicians. Instead of calling quack and charlatan and knave and letting it go at that, instead of demanding a closed door in favor of the regular medical profession, instead of laying ourselves open to the reproach of maintaining a dog-in-the-manger attitude, it would be far more useful for us as a profession to investigate impartially, sincerely and honestly every system of healing that is proposed in good earnest, to determine its possibilities and its limitations. In

so far as it possesses merit, any method can justly and properly be adopted by the medical profession and it should be so adopted. Ninety-nine out of a hundred sick people would rather receive a spinal adjustment in the few cases where it is required, or an osteopathic treatment, at the hands of their regular medical attendant, than resort to a chiropractor or an osteopath.

It would be the part of wisdom to employ all means that possess good in those cases in which they are suitable; but, above all, physicians should be familiar with methods offered or proclaimed as good by the cults whether they are useful or not. I repeat, they should be familiar with them and should not discard them without adequate examination. Some of us remember the early days of electrotherapy concerning which Doctor Rockwell has recently written so entertainingly. I think it was Doctor Loomis who advised him to leave electricity where it belonged, namely, in the hands of quacks and of old women. Another of the leading practitioners of New York told him that no physician in good standing could afford to use such charlatan methods. If Doctor Loomis and his contemporaries could come back now, they would be astonished at the development of electrotherapy in its various modalities. Yet, at one time, electrotherapists were considered as quacks.

Federal Regulation

For some years, there has been a tendency with respect to the medical profession as in many other activities in civil life, to regulate and order activities from a central national office in Washington. The provisions of the Narcotic Law, those of the Volstead Act, in so far as both affect physicians, are but two instances of this tendency to nationalize the medical profession and to make its members subservient to the bureaucrats in Washington and their understrappers in the various state departments. Congress has even arrogated to itself the decision as to how much of a certain drug a physician may prescribe to any patient in the course of one week. The notorious Shepperd-Towner Act is another instance illustrating this tendency, and the attempt to regulate the work of physicians, to card-index and to supervise the patients, is unmistakable. State medicine, or nationalized medicine, seems to be on the way and threatens to deal as evilly with the medical profession in our country as it has done in Germany and in England. In addition to State Medicine, there are various lay agencies of which the Red Cross may be designed as the least injurious. All of

them have invaded the physician's territory and have not only rendered his work more difficult but have also interfered greatly with his opportunities for earning a livelihood. As far as I can find, the medical societies in New York and in Illinois, partly also those in Massachusetts, have been most active in fighting against these tendencies of nationalization and of central control. It is to be hoped that we can influence the individual members of the medical profession sufficiently to realize the danger that approaches them and to convince their patients and their friends of the gravity of the problem.

Miss Keller's Investigation

Despite Robert Burns' fervent wish that we might be able to see ourselves as others see us, its consummation is not always pleasant, however good it may be for our souls. This is particularly evident on reading a report of the laity's idea of the physician, which Miss Buda Carroll Kellar presented to the last meeting of the Illinois State Medical Society and which was published in the *Illinois Medical Journal* for July. This report discovers to us what 6772 persons, in and out of Chicago, actually think of the medical profession and why they patronize other healing agencies. It is good for all of us to read this report and to read it again. We, as editors, can influence medical thought to a degree. There are several wholesome lessons contained in this report and we should take it to heart.

Too Few Doctors?

Another one of the problems confronting the medical profession is the alleged dearth of doctors in certain districts and the supposed disappearance of the family doctor. As I have pointed out quite recently, it can hardly be said that there are too few doctors to serve the needs of the medical profession. The trouble is much rather with their distribution. After having spent from six to ten years in preparing for the practice of medicine, a young graduate naturally hesitates to go to the country to treat little Johnny for his snuffles and little Sally for her tummyache. He wants to do big things, enter a specialty and take in big fees. Yet, the people in the country are entitled to the services of a physician and it should be made possible for them to procure one. The experiment recently made in Sharon, Kans., where a physician was employed by the community at a stated minimum salary, is interesting. It, or a modification of it, may possibly solve many of the difficulties of distribution.

The family physician seems to have been

overshadowed by the splendors of the specialist and seems to have lost ground. You are familiar with the assertion of Sir James Mackenzie, that it is the general practitioner, the family doctor, on whom medical science and medical progress depend for much information in the study of disease, that is essential for its correct and just appreciation. There are many people who think as Sir James does, and I believe that the many disadvantages of overspecialization and the extreme and high cost of medical attendance which, as a first reaction, have driven many people to the cultists, will cause the pendulum to swing back and to restore the general practitioner to his dignified and essential position as a splendid factor of medical practice. Without medical practice, mind you, medical science would have no reason for existence. Medical science is a beautiful thing, but it is useless unless its lessons can be applied in practice. It goes without saying that the numerous trials and tribulations, the constant difficulties and disappointments that the physician encounters can be overcome by a proper change of heart, change of methods, change of attitude. That physician who sees in his patient a human being that is sick, and not a collection of organs with perverted function, will be more successful because he takes into consideration the mental factor, he deals with his patient as a person endowed with mind and he influences that mind. Treating a patient merely as a bit of machinery, or as one hardly treats a sick dog or horse, may be successful up to a certain point; but, the practitioner who follows that plan never will have warm friends in his patients.

Further, it is time for physicians to give up their aloofness from everyday affairs, their splendid isolation, their exclusive preoccupation with matters immediately connected with their work. Physicians are not only medical practitioners; they are, incidentally, citizens, fathers of families, just folks. If we meet our neighbors on a friendly, humane and human footing, if we share in their interests and explain to them the inevitable questions that they will submit to us (shop talk, if you will, but still of interest to them), we shall contribute greatly to a much needed popular education in matters medical. Various great metropolitan papers are attempting to do that, and the physicians attached to the editorial staffs of these papers accomplish much good. Popular education should go much further and reach everybody that can be reached.

Another thing, it is about time that physi-

cians amongst themselves assumed a more dignified attitude and give up their little jealousies, their little back-bitings, their little picayune differences of opinion. If there is no unanimity in the medical profession, how can we expect the public to respect us? This is just a pointer. A reproach is constantly being made that doctors fight amongst each other more than do even musicians.

As medical editors, we wield an influence that is almost unlimited in its possibilities. This influence can be exerted for good or for evil. It rests with us which it shall be. It is for us to inform ourselves honestly and fully, not only of the actual medical and professional problems that confront our colleagues

in active practice but also of the various factors that touch medical practice and, no less, those questions of public, social and family life in which physicians should be interested and play a leading role. It is our duty to investigate everything that can be of interest to those who look to us for advice and guidance and to express our advice in such a manner that its honesty and disinterestedness, its excellence for the public and the professional welfare can not be a matter of doubt. It is a mighty good plan to investigate honestly and impartially everything that is offered for the good of the sick. Having done so, only that which is actually good and meritorious should be accepted.

Saving the American Chemical Industry*

By ERNEST H. VOLWILER, Chicago, Illinois

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THE domination of world chemical markets by Germany, before the war, has been so often referred to and explained that, to repeat it here, is inviting the accusation of being trite. Nevertheless, the outstanding factor in our chemical industry, up to 1915, was the German throttle hold, and a reference to that period can have no proper background unless that fact is taken into consideration. Speaking of the period before 1914, we cannot discuss saving the American chemical industry; for, there was practically none to save. A few dyes were being produced, from imported intermediates, by several rather small concerns whose stockholders probably felt like the Irishman who was being ridden on a rail. When his tormentors stopped to rest, Pat exclaimed, "Begorra, if it wasn't for the honor, I'd rather walk".

Practically the only medicinals then manufactured were the salicylates and their derivatives, and these were made in German-controlled factories; some phenolphthalein and saccharin were being produced also.

Hence, when we speak of saving the American Chemical Industry, we must mean saving an infant which was born after 1914—and a lusty infant it has now become. Growing-pains are still evident at times, and immaturity is still somewhat in evidence; but it is a healthy infant, which has largely had to depend upon its own initiative in order to survive the powerful attacks of those from with-

out (and also, unhappily, by some from within) who sought to destroy it. The story of the rapid growth of this infant is an interesting one, but only a few of the important developments relating to medicine can be mentioned here.

How It Started

No story of this nature can begin or end satisfactorily without mentioning the arspenamines and telling something of their interesting development in this country. As early as 1915, when, as you know, foreign supplies of salvarsan were almost unobtainable and the prices were out of reach, small quantities of satisfactory American arspenamine were produced by the Dermatological Research Laboratories, of Philadelphia, at a price which was lower than any price placed on the product by the Germans. This effort to supply the American wants did not go unchallenged, for the German representatives threatened suit for infringement of patents, even though the Germans themselves had never produced a Gram of Salvarsan in this country. The work in Philadelphia continued, however, and, as the years progressed, the quality was steadily improved and the price lowered. There are now half a dozen American manufacturers of these indispensable arsenicals supplying our needs with drugs of unsurpassed quality.

At the same time that these developments were taking place, the other important remedies which were needed in medicine were being produced—barbital, or veronal; cinchophen, or atophan; anesthesin, procaine, luminal

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—these and others of domestic manufacture soon appeared upon the market, most of them soon attaining prices lower than the American physician had ever known before. One fact in this connection is very striking. There were some seven or eight hundred German patents on synthetic medicinals in operation in this country, in 1914, but only a very small number—perhaps several dozen—of the products described therein were in demand by the American physicians. What about the remainder? They were products of various types—some which seemed promising at first, but did not hold up; many never were of any apparent value, but the patents were taken out to cover series of compounds in which future developments were expected, in order to keep others from getting into the field. When all these patents were taken over by the United States and carefully investigated, most of them were passed by as being valueless, leaving only a dozen or two of really valuable synthetic medicinals, virtually all of which are being produced in this country.

American Chemical Research Stimulated

If the American chemical industry had done nothing but make available the essential medicinals so sadly lacking during the war, it would have accomplished an important task. But, this work was used as a stepping stone to discovering and producing newer and better products—the results of purely American research and development. No other country can show more important advances during the last eight years, and it is doubtful whether any can submit an even comparable record of achievement.

If we pause for a moment to consider this point, we shall at once bring to mind some of the best drugs available to the physician: among antiseptics, the universally used chloramines, the therapeutic discovery of which may be listed as one of the benefits resulting directly from the war; new local anesthetics, apothesine, butyn, and butesin; the benzyl esters developed as the result of Macht's work; mercurials, such as mercurochrome, metaphen, and mercurosol; the exceedingly potent and important glandular products, thyroxin and insulin; the synthetic fat, intarvin, which, when fed to diabetic patients, apparently does not give rise to acetone and butyric acid derivatives as ordinary fats do; new arsenicals of which the best known up to the present is trypanamide, discovered by the chemists of the Rockefeller Foundation in New York City and found promising for African trypanoso-

miasis. Apparently valueless in human syphilis because of the danger of producing blindness, it was revived as a promising cure for neurosyphilis. These individual facts we all know; but, unless we stop to think about the matter and summarize the achievements of American chemistry during recent years, we are apt to overlook many of the important contributions.

The American chemical industry has survived a trying and at times almost hectic existence, and it is not yet out of danger. During the war, when chemistry was a byword with everyone and the national defense depended upon it, no protection was needed, for there was no competition. This condition ended with the armistice. Past experiences were still vivid enough, so that Congress erected the barrier of a temporary embargo against the waves of cheap foreign chemicals, made with cheap labor and from cheap intermediates. When the Fordney-McCumber tariff act went into effect, the embargo was abandoned. Under the tariff act, certain products have all the protection they need, while others, particularly the non-coaltar synthetics, are not sufficiently protected. Were it not for the unsettled conditions in Germany in general and the Ruhr in particular, during the past year, it is certain that the manufacture of some important non-coaltar medicinals would have had to be abandoned in this country.

The Chemical Foundation

The Chemical Foundation has done much to keep out smuggled and illegally imported foreign chemicals, and has gone far in a sustained effort to encourage American manufacturers. The Foundation has been very severely criticized at times by those who did not understand its operation and by those who were opposed to the home industry; and finally this opposition crystallized itself in causing the Government's suit against the Foundation, to recover the patents purchased in 1919 by the latter. The decision in this case has not yet been handed down, but several things of note have developed in the course of the trial. The Government's charges of fraud were dropped almost at once; the charges of conspiracy were not supported by the evidence in a single instance, and the attorneys for the government have at times been placed in the anomalous position of failing to bring out evidence in their own files which would have nullified their own arguments. A comparison of the witnesses who appeared for the Chemical Foundation with those who were called by the Government is also of interest.

What of the Future?

With experience and growth, the young industry will adapt itself to meet all competition, but it is hardly fair to expect it, in less than ten years, to be as firmly entrenched as was the German industry after more than fifty years of intensive development. The growing appreciation of what the industry means to this country is excellently illustrated by the words of Herbert Hoover, Secretary of the Department of Commerce, who says:

"No human person can evaluate the contribution of the science of chemistry to the advancement of civilization. The enormous advance in standards of living, the greater margins of comfort, the lessening of physical exertion required to attain these things, the relief of suffering, the extension of health and life, have all received the most vital contribution by the applied science of chemistry. Moreover, our future advancement is indissolubly dependent upon our advance in the twin sciences of chemistry and physics and their application. Indeed, with steady accretion of understanding, the border lines between these sciences are gradually disappearing. Incidentally, the chief job of political and social science is to develop methods of keeping their field in pace with the changes imposed upon them by industrial chemistry and physics.

"Industry and commerce have grown rapidly in recent years in their appreciation of the fundamental contribution of pure science of both chemistry and physics. The great increase in private research laboratories, the fine support of our public institutions, are the mark of this realization. Discovery and invention are now no longer the function of the garret

genius. They are the result of deliberate organized exploration by our men of pure science. New discoveries and their application will come faster and more securely than ever before; and, I believe, the next half century will be greater in its triumphs of science and in their contribution to human welfare than even the last fifty years—for we are better trained, better organized, better equipped for discovery than ever before."

During all this effort to build up and save the American Chemical Industry, no group of men has given more hearty support to the work or contributed more towards the accomplishment of the program than the editors of the medical journals. They have encouraged the use of American medicinals and have fought the importation and surreptitious smuggling of drugs; and, most important of all, when their opportunity came in 1922, during the debates in Congress on the degree of protection to be given to chemical products, they loyally backed the industry and fought for an adequate tariff. What was accomplished is largely due to their efforts. Since the war, we have repeatedly heard the question asked, "Who won the war?" The answer is "Everybody who cooperated!" In asking the similar question, "Who saved the American Chemical Industry?" we have a similar answer. In accomplishing the task, the editors of the medical journals played a leading part. With their continued support, the industry can pursue its rapid growth and assume a leading place in the world markets.

Starvation Polyuria and Starvation Edema*

A Modern and Historical Discussion

By ALFRED MARTIN, Bad-Nauheim, Germany

STARVATION polyuria and starvation edema as disease entities were little known prior to the last war. True, edema associated with marasmus was recognized, but it was not brought into relation with starvation and probably is associated only in part with malnutrition; moreover, it does not attain to the intensity of edema. The starvation polyuria probably was quite unknown. In America, it is not likely that either one of the two affections was observed. Still, I know of one historical case which I shall relate in the following.

In the literature at my disposal, strangely enough, no reference is made to the fact that one and the same disease is concerned here.

In my opinion, the polyuria is a stage preceding the edema.

In protracted wars, during which people were forced to go hungry, edemas have been reported by chroniclers. For instance, a Magister Johann Daniel Mincks, in Gross-Bieberau, in Hessen, relates in his chronicle that, during the Thirty Years' War, great famine existed from 1635 to 1638. He says: "Because of this famine, people starved to such an extent that they were actually nothing but skin and bones. The skin hung on their bodies like sacks. They were black-yellow, with large eyes, the teeth exposed, the skin covered with eruptions, jaundiced, the bodies greatly swollen, afflicted with fever so that it was horrible to look at them." Nothing is said about copious micturition. Possibly it did

*Translated from the German Manuscript.

not strike people as out of the common.

A Historical Case

Of the greater interest is the following historical report from America. My reporter was a close observer and described the horrors of starvation in minute details. I reproduce only those passages that interest us, as I find them in "Emanuel Crespel's Reisen in Kanada und Schiffbruch bei der Rückkehr nach Frankreich", which was translated into German and published by Karl Esselborn and was issued as No. 25 of the "Hessische Volksbücher" (Publisher, Professor Diehl, in Friedberg, Hessen). The Observantine Padre, Emanuel Crespel, a Frenchman, an uncle of the friend of Goethe, the Counsellor Crespel in Frankfurt A. M., had gone to Canada as chaplain and intended, on November 3, 1736, to return from Quebec to France. The ship was wrecked eight miles from the southernmost point of Anticosti. Since succor could not be hoped for before the end of April, precautions were taken to ration the provisions. "We arranged accordingly," Crespel writes, "our rations in the following manner: Mornings, we boiled two pounds of flour in melted snow which gave us a paste or, rather, water gruel. Evenings, we boiled, in like manner, about the same quantity of meat. There were seventeen of us and, therefore, each one had about four ounces of food. Once a week, we ate peas instead of meat and, although each one received but one soup-spoonful, it still was the best of all our meals."

The cutting and transport of wood, which was necessary on account of the cold, caused enormous exertion. "Our weakness increased in the same degree in which our labor became greater", remarks Crespel. "The smoke and snow caused severe pain in the eyes, and, what was the worst evil: we had no bowel movements but a flow of urine that did not give us a moment's peace. I leave it to the physicians to inquire whence these two troubles might have come. Even if we had known the cause, this knowledge still would not have served us. There is no advantage in discovering the cause of an evil if there is no possibility to employ a curative remedy."

In January, 1737, the first deaths occurred. The upper servant and the carpenter died of exhaustion. From January 23 to February 16, there were no deaths, "although many of our people had swollen limbs". After that, death reaped a rich harvest through hunger and cold. When, early in May, some Indians made it possible for Crespel to join a Frenchman whom he knew, the latter did not recognize him. Then they undertook the relief of the

others. Four of another group of the victims of the shipwreck were found alive. Their faces were entirely fleshless and their voices showed that they were near the grave. One died while drinking a glass of brandy. Twenty-one persons were buried. Of the three survivors, one had lost his mind. The bodies of the two others were swollen greatly.

"The good nourishment that was given them and the care that they enjoyed restored them, though not completely, still sufficiently that they were able to return to Quebec with us."

These people were even worse than Crespel's own group. Lacking every form of food, they had boiled the shoes of those who died, in melted snow, roasted them over hot coals and eaten them. When this supply gave out, they resorted to leather breeches and they possessed only one or two pairs of these when they were found.

Polyuria Precedes Edema

Here it may be seen clearly that, in starvation, the polyuria precedes the edema. During the war, I have seen no edema-patients. However, of polyuria, I suffered myself in the worst way during the terrible famine year of 1917. A comparison of my pictures, taken in



Dr. Martin in 1913

1913 and 1917, will illustrate the emaciation through hunger. In 1916, the state of my nutrition was still good. Then, I lost fairly

rapidly from twenty to twenty-five kilograms (from forty to fifty pounds) and the polyuria made its appearance. I voided enormous quantities of urine, especially at night time, so that a large chamber did not suffice to hold it all. Sleep was disturbed greatly by the necessity of rising. It is true that many a night I went to bed hungry. I had to do that because my children did not have enough to eat and fought for the bread that was bad enough, so that, finally, we had to apportion to each one his share and whoever had eaten it too early had to go without.

The Etiology

Many theories have been advanced to explain the occurrence of the starvation edema.



Dr. Martin in 1917

It goes without saying that the cause lies in the insufficient nutrition. The fault has been placed with the turnip (*Beta vulgaris*) which was eaten much, especially in 1917. It sounds like irony if one reads today what was written in December, 1916, in order to make the people forget the lack of meat: "It is necessary to combat, again and again, the old belief of the peace time that large quantities of meat protein are indispensable. Far more seriously than the lack of meat, does the scarcity of potatoes affect us. Even here, though, there exists a means for equalizing the want, namely, the carrot, the turnip, and the beet, the protein content of which is about equal to that of the potato. With regard to the content in carbo-

hydrates, it is true that these roots are inferior to potatoes, but this will have to be equalized by a somewhat increased consumption." Then followed what may be called virtually the turnip period with its polyuria and its edema. I do not view the turnip as the cause; still, it did not supply that which was lacking.

According to my way of thinking, we must look for the cause in the want of fats. An American colleague, who visited me in 1923, observed in his own person that, in Germany, he was obliged to pass more urine than in America. He believed the cause to lie in the fact that, even now, in Germany, the dishes in the hotels where he ate were prepared with less of fats. I myself found my health improved by adding fat to my rations.

How does the absence of a certain constituent act, let us say, of the fat? What happens in the body?

Pathogenesis of Edema

Interesting experiments have been undertaken by a physician in Leichlingen, Doctor Beck, which were published in the *Therapeutische Berichte*, 1918. Beck had ample opportunity to treat edema patients.

In all uncomplicated cases, he found an extremely low blood pressure. He concluded quite correctly that this might have a double cause, either a diminished power of the heart or a dilatation of the vessel lumen; that is to say, a lessening of the circulatory resistance. Unfortunately, Beck does not say how he tested the heart force, but he does indicate that, in all cases, the examination of the heart force showed entirely, or almost entirely, normal conditions. It seems to be important to me that the so-called cardiac tonics were employed without results. Beck concludes that, therefore, the low blood pressure is due to an abnormal vascular dilatation and, consequently, the edema is caused by the same factor. As for treatment, he believed the administration of *secale cornutum* to be indicated which had been administered even earlier, for instance, by O. Rosenbach, in order to increase the tonus of the arterial system.

Beck did not use *secale cornutum* but a synthetic *secale* substitute ("Ersatz"), the Tenosin (manufactured by Friedr. Bayer & Co., in Leverkusen near Cologne) and he had surprising results. Commonly he took 20 drops of Tenosin-Liquor, three times daily. In a relatively short time, usually after from three to five days, the edema disappeared entirely.

In the starvation edema, but little urine is eliminated; during its early stage, that of polyuria, much urine is passed. The cause of

the whole malady, therefore, can not be attributed to the fact that the vasoconstrictors of the small arteries have lost their function so that the vascular tonus was diminished. The cause lies in the absence of certain food constituents through which an increase of fluid in the vascular system was brought about. At first, this was eliminated (polyuria). Then the vasoconstrictors became weakened and the fluid transuded from the vessels into the tissues—edema. Unfortunately, Beck does not indicate whether his patients suffered from polyuria after their "cure", for he did not remove the cause of the disease, that is, the insufficiency in nutrition. Relieving starvation restored even Crespel's companions who had become greatly edematous.

In any event, Beck's observations are of importance. His therapy will be of excellent service in many cases of edema that originate neither in the heart nor in the kidneys; for instance, in the edema following the rapid antifat treatment.

The Treatment Is, Food

The best therapy in polyuria and edema of starvation is, at any rate, the relief of the

starvation. Germany is grateful to America that, after the war, this country supplied the best curative remedy by sending foodstuffs through which nourishment could be afforded especially to the children with their growing bodies. In this manner, indirect assistance was rendered to the grownups likewise. It has not come to be sufficiently known how often mothers starved to death because they gave their last to their children. Many times, it was said that certain children were not at all badly nourished, but, if one could see the mothers, one could understand how greatly in need the family was of additional food.

Unfortunately, the spectre of famine again threatens Germany. The potato harvest is bad and the dreadfully high cost of living forces already great portions of the people to go hungry. All economy in spending money, the greatest industry, everything is in vain if each additional depreciation of the Mark causes the savings in money to lose their value. The moral effect is terrible. The impetus to save is lost. Physical and moral improvement will only be possible when the financial conditions of Germany are placed on a solid foundation.

Parathyroid

A Calcium-Mordant in Tuberculosis

By HENRY R. HARROWER, Glendale, California

FIRST, I must explain the terminology of my title. A mordant is a chemical used by dyers to make the color stick. It is an essential part of the process. A "calcium-mordant" then, is something which is capable of "fixing" calcium or making it stay in the system, and I propose to show in this paper that not only is a "calcium-mordant" something particularly needed in tuberculosis, but that recent investigations evidently have disclosed to us that the "leakage of calcium", which takes place in several diseases and especially in tuberculosis, has to do with the endocrine mechanism of the body and, more interesting still, may be modified by organotherapy.

I submit to readers of CLINICAL MEDICINE an idea (not altogether original with me) which evidently has an important bearing upon the great tuberculosis problem and which, at the present writing, is new and only tried in a limited way.

Realizing full well that "cures" for tuberculosis come and go from year to year and that even most promising remedies last but a

short while and rarely "stick", I submit these subjoined comments in the hope that they may indeed develop into something permanently useful.

Lime Starvation in Tuberculosis

There are a hundred or more papers on various aspects of calcium loss, lime starvation, demineralization and the metabolic features of the tuberculous. Summed up, they show that, whether as cause or effect, the calcium content of the organism is *decreased* in conjunction with the development of tuberculosis. Some of the writers, like Bayle, of Cannes, believe that the body lacks certain catalysts or "colloidogens" which not only prevent the humanizing of calcium salts (the bringing about of that change from mineral or crystalloid to human or colloid) but at the same time allow the already colloid calcium to be lost either by elimination through the kidneys and the bowels or by neutralization. Another French writer once wrote enthusiastically about a urinary test for early tuberculosis. It consisted of a study of the calcium loss, which is so often increased in connection

with the development of a tuberculous lesion.

Still others have shown that the expected malnutrition in tuberculosis was largely due to the *status calciprius*, or lime starvation, and the natural effort has been, to give more lime—organic from bone, superorganic from fresh "green" bone, or in the form of various inorganic calcium salts. There are many forms of calcium on the market for oral or intravenous use. Many foods are recommended as being especially suited for the tuberculous because of their calcium content. Milk is the chief of these. So:

The calcium feature of the metabolism and nutrition in tuberculosis is paramount.

The Cause of Calcium Depletion

There is some difference of opinion as to why this calcium loss is so uniformly found in this disease. Naturally, a weakened, run-down person loses somehow, and calcium is as likely to be lost as other elements. Or the toxemia of tuberculosis tends to cause acidosis, and the natural chemical result is the neutralization of at least a part of the body's store of alkalies, of which lime is the chief in both, amount and essential importance to the organism.

Again, there is supposed to be a specific product, presumably of bacterial origin, which undoes the body's calcium-storing powers; while, as I have already mentioned, Bayle believes that a product of this nature (a colloidogen) is not being manufactured in sufficient amount by the endocrine system and the body loses its calcium because it cannot "fix" it. Anyway:

Calcium fixation is an important feature of the nutritional regulation in tuberculosis.

It is immaterial whether this calcium derangement is due to calcium starvation, to endocrine catalytic defects or to chemical destruction. We must admit for the purpose of upholding our conviction that the foregoing is true. Granted that there may be differences of opinion as to the manner, we insist that:

Tuberculosis is a disease of nutrition and the calcium metabolism is of transcendent importance.

The Control of Calcium Loss

How then shall we combat this state of affairs?

With calcium-containing foods or remedies? Why not? When the body particularly needs a certain element, it is for us to supply it as best we may. And we should; for, nothing can take the place of this important element.

With measures calculated to lessen calcium

depletion or neutralization? Certainly. Detoxication, control of the complicating mixed infection, lessening the febrile feature with whatever we have found of value, are both sound and sensible.

With the artificial enhancement of the body's calcium-fixing powers? Yes, indeed, provided a way can be found to do this.

This idea of encouraging calcium fixation or "stopping calcium leakage" is the big idea I am passing along.

Blood Calcium Variations in Ulcers

Elsewhere, I have recounted the epoch-making work initiated at Cambridge University, which connects calcium loss with the cause of ulcers and shows that parathyroid therapy increases the blood calcium *by actual test* and, still more remarkable, often heals these ulcers. It is a fascinating story, and it outlines one of the most astounding new chapters in the story of organotherapeutic advance.

Briefly, the proposition was this: Vines and Grove found a low blood calcium to be the rule in a series of cases with leg ulcers. They fed these patients parathyroid, brought up the blood calcium figures to the accepted normal, and the ulcers healed. Some of them were of years' standing and had been resistant to many measures. They continued their studies. Low blood calcium was found in a series of cases of gastric ulcer, of duodenal ulcer, of intestinal ulceration (sprue) and even of chronic middle-ear infection. Naturally, they tried to raise the low calcium figure, as they had succeeded in doing previously: with parathyroid extract *by mouth*. Almost invariably, they caused the 30-percent, 50-percent or even 75-percent reduction in the calcium to be replaced by an apparently normal figure, in a few weeks. And, by maintaining this figure (they continued the parathyroid therapy and the blood calcium estimations), they have succeeded in curing a satisfactory percentage of these varied forms of ulceration. A thousand tests have definitely proved that:

Oral parathyroid therapy increases the blood calcium figure with coincident healing of ulceration of years' standing.

Clinical Proving of Organotherapy

The question arises: How can an extract of parathyroid, given by mouth, be active when such products are claimed by some to be destroyed in the digestive canal? I answer that the claims of such persons are made in error. For, all this meticulous laboratory work at the Beit Memorial Research Laboratory of the University of Cambridge has proved and proved again that oral parathyroid therapy is

one of the most active forms of organotherapy and that its therapeutic efficacy is actually measured by the laboratory findings—the raised blood calcium figures!

Other recent research work lends confirmation to this. For instance, Professor Salvesen, in the University of Christiania, has been studying the control of the parathyroids upon calcium storage. Remove or cripple these insignificant little organs, and the calcium fairly “leaks away” from the body. Administer calcium in such circumstances and ninety percent of it passes out through the bowel, no matter whether the calcium is a food, as in milk, or a drug, as following intravenous injections of large amounts of suitable solutions of calcium salts. This is but additional support to the discovery of MacCallum, at Columbia University, that parathyroidectomy causes calcium starvation and that the tetany resulting from the removal of these glandules may be controlled, at least temporarily, by injections of calcium.

It is all a very interesting story begun only 35 years ago by the discovery of these little organs by the Swedish physician, Sandström.

The Essential Idea

As to whether my suggestion is going to be feasible, and parathyroid therapy is going to revolutionize one feature of the treatment of the tuberculous, time only will tell. We can be assured that:

Calcium loss is the rule in tuberculosis.

Parathyroid therapy increases the blood calcium. Ergo:

Parathyroid therapy should be a reasonable addition to our treatment of tuberculosis. Or again:

Tuberculosis is really a form of ulceration—of the lungs, the bones, skin, throat. Parathyroid therapy has apparently cured ulcers elsewhere—of the legs, stomach, intestine and middle ear. Ergo:

Why not hope for similar results from parathyroid therapy in tuberculosis?

These suggestions are set forth in writing with knowledge that it will be said, by some that I am wrong. I have talked to literally hundreds regarding the various possibilities of parathyroid therapy—real and proved beyond peradventure and prospective, such as I submit here. Invariably the logic of the thing has been arresting.

Make a Clinical Test Fit

The next thing to do is, to put this idea into the melting pot, to test it in an extensive way. The fundamentals are sound enough. There can be no denying the facts in this statement. The suggestion is:

Parathyroid therapy is recommended as a means of assisting in the control of the conditions underlying tuberculosis by its influence through the regulation of conditions accompanying deficient blood calcium and its coincident healing effect upon ulceration.

Medical Inspection in the Seattle Public Schools

By IRA C. BROWN, Seattle, Washington

IN 1914, the board of school directors of Seattle School District No. 1 invited the writer to organize a health department for the district under an existing statute. Prior to this time, the school directors had employed three nurses who were under the direction of the health department of the city. This plan did not bring the results that school people had had in mind—hence the request.

Previous to accepting this position, an opportunity presented itself so that I was able to make a world's survey of child life and sanitation. Various countries were visited. In China, India, Egypt and southern Italy, only very little information was obtainable. The habits and life of these people are so different from our own that there is no comparison. In Japan, health conditions are better than in many of our states. It was in Europe that

I was able to make comparisons and gain useful information.

In an extended observation the world over, on a great variety and mixture of people, some striking percentages presented themselves. For instance, before the war, we learned, 94 percent of the German male population were fit for military duty, 83 percent of the French were fit for military service and 73 percent of the English. From my own experience as an officer for many years in our own army, we found that but about one in eight who applied for enlistment could be accepted. Of course, this was not a fair percentage of the physical fitness of our young men, because the class of men applying for enlistment was not an average of our population; but we knew that the defects among our young men were very high, and the draft-board experiences in the late

war afford a silent proof of this fact.

Start With the Children

It is a matter for very serious consideration by all well-wishers for our national existence that the children be made as nearly perfect as possible, and the only place, it appears to me, that this can logically be done is in the public schools. This thought has been uppermost in our minds for many years. It is also a matter for serious thought, when we compare our figures of physical percentages, that the Germans had the most complete system in the world of caring for their children. France came next, England was doing little more than we were and, as the physical fitness of the adult population depends absolutely upon the care given the children, it behooves us all to get back of the movement for child welfare and push it vigorously.

In carrying this thought to its logical conclusion, Seattle school children are living witnesses for the excellence of this plan. When school closed last year, our attendance was nearly 97 percent and, while it would make an article of this nature too long to go into details, I might say that the condition of our children is due entirely to correcting all defects possible.

In Vienna, I absorbed the lesson that was intended to convey the thought that everyone between birth and fifteen years of age had tuberculosis. That is, it was fundamentally possible to have an active tuberculosis without further exposure. Naturally then, the thing to do was, to improve environmental conditions generally, particularly the food and hygiene and to remove all contributing influences such as carious teeth, septic tonsils, adenoid growths, and to undertake the active treatment of all children who showed the slightest enlargement of glands anywhere.

I believed then, and know it now, that iodine is some form would be the ideal treatment and that much could be accomplished in fortifying the child against debilitating influences.

Work Among Seattle School Children

To carry into effect our ideas, we have, at this time, twelve nurses in the field and one woman physician supervisor of nurses who also looks after the girls in the highschools. At the beginning of each school year, each child has an examination by the nurse who has been post-graduated in the work she has to do. A permanent record is made of the findings and, if a defect is found, an advisory card is sent to the parents informing them of the condition and recommending that they

consult a physician, specialist, or dentist, as the case may be. This is followed by other notices until action is taken and the correction made. If the parents are too poor to have the corrections made, the children are sent to the school clinic where a volunteer staff of medical men cares for all those who have an entrance permission. For seven years, the writer conducted this clinic, but he was forced out of the work by Christian Science activities in the courts. The work, however, is going on the same as before under the management of the Junior Red Cross.

Goiter and Iodine

In 1914, out of a school population of 31,166, we found 9,349 with goiters and one might say that most of the children had several enlarged cervical glands. As previously stated, this condition called for iodine, and it was so ordered. In looking about for the most convenient and economical form of iodine to administer, I chose calcidin, an iodine preparation put out by The Abbott Laboratories. I did this because previous experience had shown that there was less systemic effect produced by calcidin than by any other preparation of iodine that we were familiar with. I have always given this remedy in 1-grain doses, from kindergarten to highschool age, in fact any age, increasing or decreasing the frequency of the doses as seemed necessary. I am giving 1 grain of calcidin every hour to small children with enlarged and inflamed glands, continuing until the inflammation is under control or the case goes on to suppuration, when the gland is opened and drained.

I have never been in sympathy with the practice of operating on these enlarged glands and only do so as a last resort and as here indicated.

To children presenting themselves with "simple goiter", 6 grains of calcidin are given per day, 2 grains after meals, and gradually diminishing to 1 grain after each meal. I have observed that it is best to have the tonsils removed, together with adenoids; and carious teeth should be either extracted or repaired before any treatment for goiter is undertaken. Goiter that resists any treatments will respond quickly when these corrections are made. I do not permit any strenuous exercise in goiter cases, advise against worry and excitement, and order a meat-free diet.

Results Prove Justice of Contention

While in Berne, Switzerland, I was greatly impressed with the work of the elder Kocher, so much so that, in our early work here, when

cases of goiter were sent to the family physician and they returned with the statement "Pay no attention to it, the child will outgrow it." I took quite another view and prescribed calcidin for it. At the time, I was vigorously criticized, and not altogether good-naturedly. However, I have persisted in our health program and am still continuing as I started. The following will give you an idea of the results obtained in goiter:

Year	Average Attendance	Number of goiters	Percent
1915	33,389	8,347	25
1916	33,555	6,399	19.07
1917	32,602	3,386	10.38
1918	33,905	3,328	9.81

1919	36,897	3,070	8.37
1920	39,715	3,375	8.49
1921	41,496	3,663	8.83
1922	41,893	3,847	9.18
1923	43,578	3,475	7.97

Other conditions found among school children have been corrected in as gratifying proportions. There are but few of these conditions where calcidin is not indicated and, if given liberally and persistently, not only will goiter be prevented and cured, but gland enlargements in general will disappear.

In addition to the iodine, induce the child to drink as nearly a quart of milk a day as possible.

810 Dexter Avenue.

Calcium Sulphide and Germ Diseases

By V. E. LAWRENCE, Ottawa, Kansas

WHEN riding with a skillful physician, the year after my graduation, he said to me: "Last year I was tempted to forsake the practice of medicine", and on my inquiry as to his reason, he replied: "Last year, I lost seventeen cases of scarlet fever within one week. In fact, the usual treatment is useless in malignant cases."

This statement was a shock to me and not easily forgotten. Years ago, when giving this disease some special study, it occurred to me that it, as well as smallpox and infantile paralysis, must be germ diseases. At that time, this fact had not been verified. After some consideration, I concluded that in my next dangerous case of scarlet fever I would not depend upon the treatment advised by the textbooks, but, in its stead, would prescribe the well-known but little used germicide, *calcium sulphide*.

It was probably some three years after when, one day, at 4 P. M., I was called to the bedside of a little patient aged about three years. Her brother was just convalescent from a mild attack of the disease. I there found a case with symptoms sufficiently alarming, in my opinion, to justify me in believing that the child could not survive the tardy effects of the usual remedies. The eruption covered the entire surface and was of scarlet redness; the throat swollen, pulse 200 and temperature in the armpit 107°, which, of course, meant 108° per rectum. Death was imminent within 20 hours, and I had but little

hope that anything gave the child even a slight chance of improvement. However, I dispensed a dozen 1-grain calcium sulphide tablets, chocolate-coated, with orders to give one hourly. I did not say that I would return in the morning, because I believed that, before that time, the telephone would inform me of the child's death. Receiving no message, I called at 8 A. M. It was an unexpected and agreeable surprise to find all the symptoms much less severe. On my evening call, *all symptoms were absent* and the child entirely recovered. No other remedy was used. I dismissed the patient and made no more calls.

There being at the time an epidemic of scarlet fever in Chicago, I reported this case and its treatment to CLINICAL MEDICINE and it appeared at that time.

Some two or three years after, a medical missionary¹ wrote from some foreign field that scarlet fever became epidemic in his large hospital and that he eradicated it by the use of calcium sulphide, within about 10 days.

Some weeks ago, another child, almost duplicating the former case, responded to the same treatment. Upon my second call, 18 hours after the first, all rash was absent, the temperature normal; and, on the next morning, the child was without any symptoms whatever. With her, the desquamation was somewhat tardy and the house was not fumigated until the 25th day. In the meantime, five other children were quarantined within the same rooms. They were given the calcium sulphide tablets, two every two to three hours. Only two of them contracted the symptoms of

¹Dr. Clarence D. Ussher (Van, Turkey); *Med. Record*, 1909, vol. 76, Sept. 25, p. 508.

the disease, and they with only slight sore throat and a very moderate fever. A few tablets promptly caused all symptoms of the disease to disappear.

Some eight years ago, I saw, with the Board of Health physician, at the local pest-house, the only almost completely confluent case of smallpox I had ever seen. The face was absolutely covered. Both, the doctor and myself expressed the opinion that the patient had scarcely a chance of recovery. At my suggestion, calcium sulphide was freely administered, and the patient made a not very tardy recovery.

Readers of CLINICAL MEDICINE may recall that our good old correspondent, the late Dr. Robert Gray, who for years sent in his most useful and interesting articles from old Mexico, within the last two years reported that an epidemic of smallpox among the native Mexicans was, by calcium sulphide changed from an almost 100 percent of fatalities into a 100 percent of recoveries and that, when the drug was taken before the eruption occurred, this always failed to appear. In an exposed case of mine, the disease was aborted without eruption.

In Infantile Paralysis

And, now, as to that most of all to be dreaded disease—infantile paralysis. Believing that it, too, was a germ disease, I sent to my daughter, then living near New York City, some six years ago, when the disease was epidemic in the great city, some of the tablets to be given her daughter as a preventive, and at the same time wrote Dr. Taylor, editor of *The Medical World* (Philadelphia) a request that he publish an editorial suggesting that the doctors prescribe the drug, in the hope that it might reduce the alarming fatality then prevalent.

Instead of writing the editorial, he published my letter with name and address. The following issue contained an article written by a Florida physician, stating that, several years prior to reading my article, he had used the drug in two cases apparently entirely beyond hope, which were followed by recovery. Also two others not so seriously ill had recovered.

Permit me here to emphasize the statement that the *virtue of calcium sulphide consists in its volatile odor* and that only tablets made with a coating, such as will prevent its escape, are of any potency. When, upon removal of

the cork of the bottle containing the tablets, the odor is detectable in more than a slight degree, the tablets are useless. For years past, I have used those made by The Abbott Laboratories, because they meet the requirements. Also allow me to say that the drug can be used with entire safety and efficacy in any germicidal disease, whether acute or chronic. At most, it will do not more than cause slight nausea or some activity of the bowel. When in doubt in dangerous diseases, administer it frequently.

Quinine in Pneumonia

It is now some 40 years since the late Prof. A. B. Palmer, then for 35 years dean of the University of Michigan, stated to his senior classes, that quinine in large doses, quickly aborted pneumonia.

Some ten years ago, the faculty of Johns Hopkins University published the statement that its laboratories had discovered a previously unknown active principle in quinine, which was quickly destructive to pneumococci. For 40 years, I have prescribed quinine in every case of pneumonia, with scarcely a failure to abort the disease in from three to five days. Following Prof. Palmer's advice, I give it in doses of about 10 grains every two to three hours until from 40 to 60 grains are given; also, opiates as needed for pain, and a laxative. To children, however young, the remedies are given in corresponding doses as to age. This may be repeated once or twice after 24 hours. I give the same treatment even if the patient is not seen until well into the second stage of the disease. [Read the article by Dr. S. Solis Cohen, *CLIN. MED.*, Feb., 1923, p. 93.—Ed.]

Experience has shown that the patient exhibits no or very slight symptoms of cinchonism, the probable reason being that the drug and the pneumococci destroy each other. The patient may not respond actively to the drug within two to three days, after which, however, the symptoms of the disease quickly ameliorate and the patient enters into convalescence.

Calcium Iodized

I cannot close this article without reminding the reader that, in the dark iodide of lime, we have an absolute specific for that most fatal of all childhood diseases—membranous croup. It is now some thirty years since I first wrote of its reliability. Continued experience has confirmed my claims.

The Treatment of Spastic States of Smooth Muscles

With Combinations of Camphor and Papaverine

By EDWARD AHLSTWEDE, Buffalo, New York, and WERNER BUSCH, Hamburg, Germany

A REMEDY that is generally known and constantly employed for overcoming spastic conditions of smooth muscles is camphor. Its good effects, if given in high doses in the spastic contraction of the coronary arteries, is generally acknowledged. Not so well known is this relaxing action of camphor in those cases of hypertonia that depend upon spastic contractions of the smooth muscular fibers of the vessels. Frequently, heroic doses are not administered at the critical moment when there exists a decided elevation of the blood tension and the attending physician is afraid to raise it still further by stimulating the cardiac action. Still, it is generally known that, of all cardiants, camphor may be given in the largest doses and that only in exceptional cases does it give rise to toxic effects.

A difficulty in the persistent employment of camphor lay, until a few years ago, in the necessity to inject the camphor into the subcutaneous cellular tissue or into the circulation in the form of camphorated oil or ether. In recent years, this difficulty has been obviated by the introduction of preparations of camphor that may be taken internally and, therefore, permit a continued employment of the drug. All these camphor preparations for internal use are produced by combining the camphor with bile acids. Among them, the choleic acid is particularly valuable for combinations that are therapeutically of service. According to the fundamental investigations of Wieland, numerous organic compounds can form combinations with choleic acid which therapeutically behave in the same manner as simpler combinations and, moreover, have a great advantage in that they do not irritate the intestinal mucous membrane. A further advantage is found in the gentle and slow absorption from the intestinal tract. Toxic actions can be avoided with certainty. The slow absorption gives assurance that the body is kept lastingly under the influence of the camphor.

Papaverine an Adjuvant to Camphor

However, there is the disadvantage attending every camphor medication, that the effect of internal camphor administration does not appear with sufficient promptness; for instance, in urgent cases of coronary sclerosis. In such

cases, it is necessary to administer a remedy with more rapid action, either simultaneously or at first. In coronary sclerosis, we think in this connection only of papaverine, the spasmolytic action of which usually exceeds that of camphor materially. Among the various preparations, the hydrochloride or the sulphate have proved most effective, because they are convenient, water-soluble and, hence, can be injected.

As a matter of fact, there are no spasms of smooth muscular fibers of any kind that can not be influenced favorably by papaverine. Its preparations have proved very effective in spasms in the territory of the digestive tract, of the gall bladder, also of the bronchial muscular fibers, the urinary bladder, the uterus, and especially in those forms of hypertonia already referred to that depend on spastic contractions of the smooth muscular fibers of the blood vessels.

While, hitherto, camphor preparations and papaverine were almost always given separately, it has been determined experimentally by the careful investigations of Fröhlich and Pollak that a combination of camphor and papaverine produces a marked strengthening of the effect. Such a combination preparation is of special advantage, for the reason that not only is the effect increased but it also is commonly more prompt than when the constituents are given separately. So far, the preparation known as Perichol has proved to be of most advantage.

A Combination of Both

According to our observations, this preparation often produced surprising effects, especially in cases where severe attacks of coronary sclerosis are crowded. The remedy is very valuable in the nervous form of angina pectoris, the so-called pseudo form, which, nevertheless, frequently leads to death. In this form of angina pectoris, in which there exists a violent spasm of the coronary arteries, Perichol is frequently the only effective remedy. Nevertheless, it will be well to exercise caution in administering papaverine in doses that are too frequent or too long-continued.

It has been most serviceable to proceed gradually, in such a manner that, in serious cases of angina pectoris, the attempt is made

to lessen the spasm by means of papaverine. If this is successful, the combination of camphor and papaverine (Perichol) is administered and is followed by the doses of camphor alone as soon as the attacks are no longer crowded or (in case of purely neurogenetic angina pectoris) when they have disappeared.

It is to be insisted upon that the treatment here suggested is by no means the only possible method and that old-established remedies should not be neglected entirely. Mention should be made of morphine which, after all, can not be dispensed with in any case of angina pectoris. Moreover, we wish to point out that a combination of a suitable morphine derivative with papaverine and camphor appears definitely indicated, and it is advisable to produce such preparations that contain combinations of these three pharmaceutical substances in various dosages.

It is evident that angina pectoris depending

upon extensive arteriosclerosis can not be treated by means of the remedies under discussion. However, we have observed that, in all cases of coronary sclerosis, spastic contractions of the vascular muscular fibers are concerned and, consequently, in advanced cases at least, a diminution of the intolerable attacks may be brought about. In subacute forms of coronary sclerosis in which the attacks have not reached their full development, a protracted gentle internal administration of camphor will prevent the development of severe vascular occlusions, aneurysms, and so forth.

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[Concluded from page 858]

scribe anti-Volstead substances.

"The solemn farce of Volsteadism tempered by millions of doctors' prescriptions and other devices is not at all edifying. The Volstead act should be so modified by Congress under the limitations of the eighteenth amendment that enforcement of the measure may be made truly effective."

It is, of course, an open secret that only a very small proportion of all those millions of prescriptions for whisky are issued actually as urgent and necessary remedies. A great many are written because the doctor is a good fellow and is pestered by his friends for the favor; because the doctor may want a drink himself and wants to treat his friends. Altogether, it is not a state of affairs of which we, as a profession, can be proud.

I am informed credibly that there are numerous physicians in Chicago, and, no doubt, all over the country, who make a nice little income writing these prescriptions which, to all intents and purposes, are illegal. Strangely enough, physicians are approached and insistently urged by their friends who ought to know better than to cause them to break the law. I have been asked by more than one lawyer, members of that profession that should, first and foremost, insist upon enforcement of the law, to write such prescriptions. It is this point mainly that had deterred me, from the beginning, from taking out a license, so that I can truthfully say that I have none and can not write prescriptions.

There is a peculiar psychology in this and

it is unfortunate that we, not only physicians, but all of us, are such arrant moral cowards. The physician who is licensed to issue prescriptions for alcoholic beverages and who is asked for them by his friends or by others merely for purposes of conviviality, not for bona fide use in sickness, is, nine times out of ten, too cowardly to refuse. He is afraid of losing his name of being a good fellow. I should, if I had a license; I confess. We are actually afraid to take a high moral tone and refrain from writing that kind of prescription, for the legitimate reason, namely that it would be against the law and, therefore, criminal.

The fact that one may not approve of the provisions of the Volstead act, however greatly one may be in sympathy with the Eighteenth Amendment itself, does not cut any ice at all. The Volstead act is in force. Until it is repealed or modified, it should be obeyed. For a physician to issue a prescription for whisky or other spirituous beverage, other than for a definite case of illness where it is clearly indicated, is, to commit a criminal act. For any man, or woman for that matter, to ask a physician to issue such a prescription, means to be *particeps criminis* and is, moreover, an insult and an affront. Physicians should resent these requests just as they would take exception to appeals to induce illegal abortion.

I hold not brief for the Volstead act. However, as long as it is in force, I mean to obey it, however irksome it may be. I admit that physicians are put into a very disagreeable

[Concluded on page 922.]

Surgical Seminar

Conducted by GUSTAVUS M. BLECH.

Dr. Israel's Case

IT will be recalled by the regular readers of the Seminar that, in the October (1923) issue, we published a communication by Dr. I. P. Israel of Colima, Mexico, in which our correspondent, apparently distressed about the fatal outcome of a case, sought our opinion regarding the manner in which he had managed it.

Recapitulation. The patient, a male Mexican, aged 37, was bitten by a poisonous insect about the middle of the right shoulder. Three days later, the patient consulted Dr. Israel. Examination revealed some edema on the posterior surface of the injured shoulder, with a black spot, the size of a dollar, in the center of which was a small pustule containing a yellowish serum.

Hot poultices with "antiphlogistine" were applied the next day. At the same time, microscopic examination of the pus showed many streptococci.

Four days later, Van Cott's combined vaccine arrived, and the first dose was administered. Meanwhile, the antiphlogistine applications were stopped and replaced by hot 2-percent solution of chlorazene. Salines were administered to produce intestinal evacuation. Three days later, free incisions evacuated about one pint of pus and, twelve hours later, the wound showed apparently diphtheritic complication. Another incision, made four days later somewhat below the first one, yielded more pus and became covered with diphtheritic membranes eight hours after the little operation.

Six days later, pus was evacuated from the muscle-sheath by a third incision. Five days later, the patient plainly showed exhaustion from sepsis in spite of the treatment as outlined, stimulation, etc.

During the two weeks of the patient's illness, five physicians had cooperated with Dr. Israel. On the last day, a Mexican consultant denied diphtheria of the wound, criticized the chlorazene treatment and recommended iodiform instead. Exitus lethalis the same day.

After the publication of the case, I tersely

remarked that the consultant was wrong, that his treatment was absurd, that heroic incisions and the administration of antistreptococcus serum were my principal remedies. I also remarked that I use weak bichloride solution externally and that chlorazene is the remedy *par excellence* after the acute phenomena have subsided.

When the printed issue reached me, I found that our genial managing editor had made use of his autocratic prerogatives to squeeze into the auditorium his particular pet, calcium sulphide, until the atmosphere became surcharged with the aroma of rotten eggs. It is lucky that Doctor Achard did not go beyond that; for, after all, my intention was to make only a preliminary reply to Doctor Israel's query and leave the detailed discussion to our contributors.

I am glad to be able to publish today two interesting discussions.

General Geo. Acheson, Kingston,
N. B., Canada

In discussing Dr. Israel's case, as described in the October number, the chief points of interest are, the treatment and prognosis. The diagnosis presents no difficulty—a virulent streptococcus infection.

Fortunately, cases of septicemia and pyemia are not so frequent now as they were formerly, especially before the advent of antiseptics, following the teachings of Pasteur and Lister. But, withal, one not infrequently comes across an acute streptococcus infection, such as the one described. It is usually due to some slight, apparently negligible trauma, by which the germ gains access to tissues which are not protected by an immunizing lymph; in other words, a virulent seed is planted in a receptive soil, which does not contain and is incapable of developing the necessary antidote. Such cases are among the most serious the medical man has to combat and, in my experience, both in my own practice and in that of many of my colleagues, a very high percentage of them run their fatal course, unimpeded by any form of treatment.

Somewhere between 25 and 30 years ago, I recall having had such a case under my care,

in which the focus of infection was at the site of a slight operation on the inferior turbinate, performed by one of our best rhinologists. The first indication of trouble was in the inner ear on the same side; then a painful, somewhat fluctuating swelling on the point of the opposite shoulder. When this was incised, the only discharge was a thin, watery serum, which proved to be a pure streptococcus culture. Then followed, at various intervals, abscesses in almost every cellular tissue of the body so that, at one time or another, literally quarts of pus were evacuated. The most up-to-date treatment of the time was faithfully pursued, and the patient had the benefit of some of the best medical, surgical and nursing care in Canada. But, with various ups and downs, the disease progressed for six months to its fatal issue.

Another case, about ten years later, did not run such a protracted course, taking only between three and four weeks. Here, the point of entrance was on the back of the left hand, where the skin was just broken from a light blow with an ordinary hammer. Signs of infection rapidly developed, some local inflammation and lymphangitis extending up the arms to the axilla, where one or two swollen glands were to be felt within 18 hours after the injury. The gravity of the condition was at once recognized and active measures taken. No incision in the hand ever seemed to be called for; indeed, the infection appeared to have left there entirely. Multiple abscesses, however, developed in the arm, along the left side of the thorax and in both lower limbs. Fifteen intramuscular injections of antistreptococcus serum were given, beginning on the second day of the illness. Abscesses, as they appeared, were freely opened and the edges of the wounds soon became covered with a gray membrane. At first, I employed mercuric chloride dressings; then a solution of formalin was used; all to no avail; the streptococci had the upper hand.

I remember another case, about the same time, when both, the patient and I, were fortunate enough to arrest the process, or at least confine it to a limited area, in which an incision gave exit to the pus and permitted free drainage and lavage. This case also arose from a very slight abrasion on one of the fingers—the resulting abscess pointing behind the left scapula. I recollect that the severe pain in the left side of the chest and down the left arm was at first thought to be due to angina pectoris.

These cases were all streptococcus infections and, in my opinion, when this particular

germ once gains access to the blood stream, all treatment is practically futile, unless the resistance of the patient is developed to a high degree. Of course, I would not recommend a *laissez faire* attitude, and I believe that we should do everything in our power to sustain and build up the patient's natural resistance, at the same time, combatting the enemy with every known weapon.

With Dr. Israel's treatment of his patient, little fault can be found. My only criticism would be the loss of valuable time at first in fiddling with antiphlogistine; though, evidently, he did not long continue this useless application, but substituted for it the much more efficient chlorazene.

The Editor's suggestion regarding the administration of calcium sulphide to saturation is, I think, a good one. I have proved the value of this remedy more than once as a deterrent to the activity of pyogenic bacteria. **Dr. A. J. Mendelsohn, Bridgeport, Conn.**, whom we greet as a newcomer to the Seminar, writes:

I presume, a frank discussion of the treatment is in order. There are two outstanding omissions in the line of treatment resorted to by Dr. Israel, namely: first, the failure on his part to make a radical incision or incisions earlier, and, second, the failure to administer diphtheria antitoxin when there was even the slightest suspicion of diphtheria.

The local area, the site of the primary injury, should have been incised deeply and extensively immediately after the first consultation. Dakin's catheters should have been introduced into the wound, both deeply and superficially, the wound irrigated with Dakin's solution every two hours and dressed twice daily.

The patient, in all probability, had a pus pocket in one of the muscles of the back. Whether or not that pocket could have been reached with the scalpel, is a question not easily answered without a personal examination of each individual case.

Editorial Comment

It is quite difficult for me to add anything of particular interest, as both correspondents have said about all there could be said on the subject. However, without knowing the circumstances under which Dr. Israel has to practice his profession in a country torn by internal strife and in a community quite far from industrial and commercial centers, I would not venture too severe a criticism. One cannot very well charge a fellow with lack of

culture when he appears at a formal gathering in ordinary garb, without knowing why he did not appear in the conventional dress.

I take it that, seeing the edema and other manifestation of focal infection and having a jar of antiphlogistine on hand, as the manufacturers have been rather liberal in the distribution of full-size packages, this proved the first handy thing to start with. Again it is not so easy to make a diagnosis of streptococcus infection from a mere inspection of an infection-focus, no matter what the appearance of the primary wound may be, at least not in the majority of the cases. Where the symptoms are classic: chills, fever, and so on, the difficulty is not great and, even if the diagnosis of streptococcus infection should eventually prove wrong, it is better to err on the safe side.

I have not been as lucky as my distinguished comrade, General Acheson. In a general surgical practice extending over a period of more than thirty years, I have seen a goodly number of undisputed cases of streptococcus infection. Heaven knows, I am far from being one of those pompous, dignified, conservative medicos who are not happy unless they sit at the bedside head resting on the palm of the right hand, with elbow on the knee and after much thinking decide on some conservative measure as the one least likely to cause Mrs. Grundy to criticize them for having done something desperate which was the direct cause of death, and, as I have hinted in my preliminary remark in the October issue, I waste no time with idle theories and speculations in cases of this class; and yet, I have not a single cure to my credit. My patients died, sooner or later, no matter what I did.

I have seen cases which were so foudroyant that even the thought of surgical intervention seemed ridiculous, almost like a baby seeing a neighboring building afire and fetching a spoon of water. I have amputated arms and legs in the hope of staving off the man with the scythe, only to be brushed aside by him as if I were the shadow and not he, the grim reaper. I have seen a brilliant young woman pay with her life for merely handling a magazine, a leaf edge having scratched her finger, and she had six surgeons at her bedside from the first appearance of the first evidence of infection. I have seen a workman merely fall off from a few steps from an ordinary step-ladder, abrade his knee and, a few days later, the infection spread until the pyemic process attacked his seat of reason and transformed him into an unconscious, muttering animal, passing through a stage of coma against which

we know that nothing can prevail.

Against this virulent type of bacterial invasion, I possibly could point with pride to many pages in my note book, containing the records of patients with infections, whom I have succeeded in curing; but, whenever I have had such a case, I said to myself that that was not a case of virulent streptococcus infection but of a mixed infection—a serious but not violent sepsis.

I am not so sure that Dr. Israel had a pure case of streptococcus infection. His description of the evacuation of large quantities of pus and of diphtheritic membranes of the incised wounds do not tally with what I would call a pure streptococcus pyemia. In the latter type, we hardly see any pus at all but, generally, blood-tinged serum, the characteristics of which, once seen, are never forgotten. It makes you think of a firebrand running along rapidly in his anxiety to set the whole town on fire in the briefest possible time. There seems no time for the development of pus and, what pus there is, lacks the characteristics of what the old timers came to term *pus bonum et laudabile*. I do not agree with Dr. Mendelsohn that diphtheria antitoxin was absolutely indicated, or that its non-administration was a technical error. Many of these membranes are meaningless in wounds running a mild course and, even in those running a severe course, the bacteriologic proof for diphtheria infection is seldom established.

I have no right to discuss the administration of calcium sulphide as I have no experience with it in this class of cases, but it seems to me on purely theoretic grounds that it is worth a trial, since it can do no harm. I know from the literature that it is valuable in mild infections, but I find no record in the literature that it can be charged with responsibility for the cure of a case of virulent streptococcus infection.

Dakin's method of wound treatment has many admirers. I have seen some wonderful results from its use during the late unpleasantness in France and I have also seen some wonderful failures. I believe in simplicity and, if I should ever come into a situation when hospital facilities are lacking and I have to get along with simple measures, my conscience will not bother me simply because I have no one to irrigate a wound or wounds through Dakin's glass and rubber apparatus. I, too, am frequently called into consultation by colleagues practicing in hamlets, miles away from hospital facilities. When I get a letter or telegram advising me what the nature

of the case is, I go with my assistant and we carry along enough surgical equipment not only to perform any possible operation but to provide the physician in charge with the necessary materials to enable him to carry out the proper postoperative cure. I have no Dakin apparatus in my portable kit.

Mind, I am not holding a brief defending Dr. Israel. What faults there were in his treatment, have been clearly laid down by General Acheson, referring to the uselessness of antiphlogistine in such a serious case, and, by Dr. Mendelsohn's reference to the rather late incision. But, to say that the case was not properly managed or that the lethal issue of the case could have been averted, means to say something that is not even probable. Certainly, I had a right to criticize the Mexican consultant for his advocacy of iodoform. If he is a believer in the efficacy of iodine in such cases, the use of diluted tincture of iodine is at least rational. Iodoform must first be sterilized to be useable. How much of the iodine content is lost through heat sterilization, I do not know. As for the liberation of iodine after contact with diseased tissue—well, I used to live in Missouri some time since, and I still retain the famous Missouri quality of demanding to be shown. On the other hand, his denial of wound diphtheria has justification, with this proviso that he should have looked upon the wounds as giving evidence of a mixed infection. That, in my opinion, was what Dr. Israel's case was. For a moment, the fact that the patient was bitten by a poisonous insect suggested the possibility of poisoning of the type we encounter from snake bites, but the whole picture is so distinctly surgical in character, that it was not the insect but the carrying of bacteria into the little wound that can be accepted as the *causa causans* with absolute certainty.

Dr. Israel is cordially invited to close the discussion.

Surgical Error No. 2

Dr. L. (Nebraska) writes:

You will recall that, last May, I was accorded by you the opportunity to see you operate. During my three-day stay with you, I saw you perform an appendectomy, a cholecystectomy and several other operations, notably herniotomy. I am taking the liberty of asking you to give me the reasons why you performed the appendectomy without more than a skin incision of what I thought was barely an inch; why you did the very opposite in the gall-stone case, as your incision, if I remember well, extended in a sort

of curve from the xiphoid cartilage to way down into the abdomen under the liver margin; and finally why, in making the incision for an inguinal hernia, you sweep the knife in almost a semicircle in the direction of the median line.

I also desire to ask you wherein I failed or erred in the following case.

Mrs. N. B., aged 51, very stout, had suffered from chills, fever, colicky pains radiating from the right upper abdomen to the right shoulder blade. At her last attack, she became somewhat jaundiced. The diagnosis of gall stones seemed certain and was demonstrated correct by operation.

I operated, assisted by Dr. G. and Dr. J. (anesthetist), June 9. Incision was along the right costal arch, an inch below, oblique, and about three inches in length. Step by step, the tissues were divided until the peritoneum was carefully opened by a nick with the knife and the incision cautiously enlarged by scissors. There was a good deal of bleeding, but it was readily controlled by artery forceps.

The gall bladder was easily located as it presented itself in the wound. It was very hard to the touch in the upper part, but I found no evidence of stone when my finger palpated the cystic duct. I nicked the base of the gall bladder at the junction of the liver, protected the area with hot gauze compresses and dissected off the bladder. Ligated the duct with linen thread, and amputated. I closed the abdomen without drainage. Before doing so, I explored with the index and middle fingers the duodenum and swept them in every direction, but encountered no evidence of tumor or anything abnormal.

The patient made an uneventful recovery and left the hospital after twenty days.

Two weeks later, the patient was taken ill with the same symptoms she had before I operated. I gave her an opiate which relieved her at once. The symptoms returned two days later and there was also some icterus. A neighboring physician was called in and he told the patient, as far as I could learn, that I had produced adhesions which caused all the symptoms. I learned that she had a good deal of vomiting that day and the physician said that the stomach was being pulled by the adhesions. The doctor and I are not on good terms, but I did learn that she was taken to a hospital in Omaha, there was reoperated, that they drained her but that she died four hours after the operation from shock.

Can you give me an opinion from what I
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The General Practitioner

Talks About Professional and Personal Problems
Conducted by WM. RITTENHOUSE.

Why Does Crime Prevail?

AT the recent Convention of the American Bar Association, in Minneapolis, a report was presented which deserves the serious consideration, not only of the legal fraternity, but of every citizen of this country. It compares law enforcement in England and France with its enforcement in America. It draws the conclusion that the system in the United States lacks the three great essentials of successful enforcement: namely, *celerity*, *certainty*, and *finality*.

It is public opinion which in the last analysis decides whether our civilization shall advance or retrograde, and public opinion is the summing up of the results of reflection on great questions by our influential citizens. There is much propaganda abroad based on fallacies regarding various subjects, and on none more so than the subject of dealing with crime. We have a class of citizens, and particularly of women, whose sympathies have overridden their judgment or, rather, whose sympathies have been misplaced by giving them almost entirely to the criminal instead of to his victim, thus devoting less attention to the welfare of society in general than to the welfare of a small fraction of it, and that fraction the most evil and worthless. It is therefore that I remark that the Bar Association report should receive the serious consideration of every thinking man and woman.

Lack of *celerity* in bringing criminals to trial has long been a source of embarrassment to justice, and a corresponding advantage to the criminal. All our most notorious criminals have a strong pull in politics and, as soon as one is arrested, he at once puts every influence at work to put off the trial as long as possible. This gives time to his lawyers to set in motion every possible wheel for the defeat of justice. It affords time to bribe witnesses or to get them out of town. Even witnesses who are incorruptible or who cannot be got out of the way, are merely human

and have fallible memories. When months or years elapse between the crime and the trial, a perfectly sincere witness may feel less sure about important details, as compared with the clear recollection which he would have if the trial were held promptly. Even the death of an important witness not infrequently occurs when the delay is long.

Secret threats are constantly resorted to for the purpose of intimidating a witness who lacks backbone. An anonymous letter or telephone message threatening harm to the witness, his family, or his property, will, unless he is a person of strong moral fiber, make him think seriously whether it is the part of wisdom to take such a risk, and the longer time he has to think it over, the more likely he is to weaken. So every phase of the matter impels the criminal to seek delay.

The report of the Bar Association committee shows that, in Great Britain and France, criminals are brought to trial much more promptly than in this country, simply because the judges there will not grant a continuance on the slightest pretext as is constantly done here.

In making application for a continuance or for a change of venue, the criminal's lawyer often makes use of the argument that public indignation would make a fair trial impossible. What an impudent assertion! This hot indignation of the public is a much more wholesome frame of mind than the easy-going indifference which is bred by observing the frequency of crime and the hopelessness of punishing it.

Certainty of punishment is perhaps the most powerful check on crime that can be devised. It is even more effective than *severity*. Criminals are natural gamblers. They take chances, trusting to luck. When they see that the criminal is not caught, in a considerable percentage of cases, and that, of those that are caught, another large percentage goes free, either through political judges, corrupt or ignorant juries, or the pardoning power in the

hands of a crooked governor, they reason that their chance of escape is so good that they are willing to take the risk.

The *finality* of justice is another point on which we are notoriously weak. The conviction of a criminal ought to be final; but it seldom is. If he has been caught, brought to trial, and, after a long and expensive struggle, is finally convicted by a jury, then, we may say, the fight has just begun. A motion for a new trial has become a matter of routine. Whether there is any justification for one, does not matter; the criminal's attorneys can always find some excuse, however trivial, for such a motion, and it is too readily granted. That will mean more delay, perhaps of months, with a corresponding letting down of enthusiasm on the part of the prosecution. If a new trial is refused, there still remains an appeal to the higher courts, and finally the pardoning power, a privilege that has been most boldly abused by the political hacks who have succeeded in getting into the governor's chair. Many good citizens think that the pardoning power should be abolished, because it offers such a field for the activities of the sentimentalists who have so much pity for the poor criminal that they have none left for his victims. These well-meaning mischief-makers are responsible for much of the laxness seen in the control of crime. A few officials of penal institutions are also afflicted with this weakness.

The situation is very discouraging to those police officials who are trying to do their duty. They say, "What's the use? We risk our lives to catch criminals, and, after they are caught and convicted, our work is liable to be nullified by the influence of politics or by the arguments of a lot of long-haired men and short-haired women. No wonder we are discouraged."

The arguments used by these so-called reformers (they don't really reform anything) are of the flimsiest character and ignore the most self-evident facts. One well-known attorney of this city, who is generally found on the defensive side when prominent criminals are on trial, has frequently made the assertion that punishment does not prevent crime, a statement utterly at variance with the facts. If punishment is swift and sure, its effect is always apparent, as is plainly shown by statistics.

Another class who help to frustrate justice consists of those well-meaning but impracticable people who regard criminals as sick persons to be pitied and restored to health;

meanwhile, the criminal laughs in his sleeve.

A few years ago, a young anarchist went to the home of an ex-chief of police in this city and attempted to assassinate him. The murderous attack would probably have been successful, had not the chief's son come to the aid of his father. Between them, they killed the would-be murderer—a clear case of self-defense. A few days after, the public was surprised and disgusted to read in the papers that the head of a prominent social settlement had expressed sympathy for the anarchist and criticized the officer for killing the "poor boy".

The report of the Bar Committee regards such misplaced sympathy as the greatest obstacle to the control of crime.

The report states that, in the year 1921, the Dominion of Canada had 57 murders; Chicago, including Cook County, with a population one third that of Canada had 212.

In 1922, there were in London 17 murders, and not one of these crimes remained unsolved. London's population is about four and a half million.

In 1921, there were 260 murders in New York in a population of ten million. The same year, Chicago had 212 in a population of about three million.

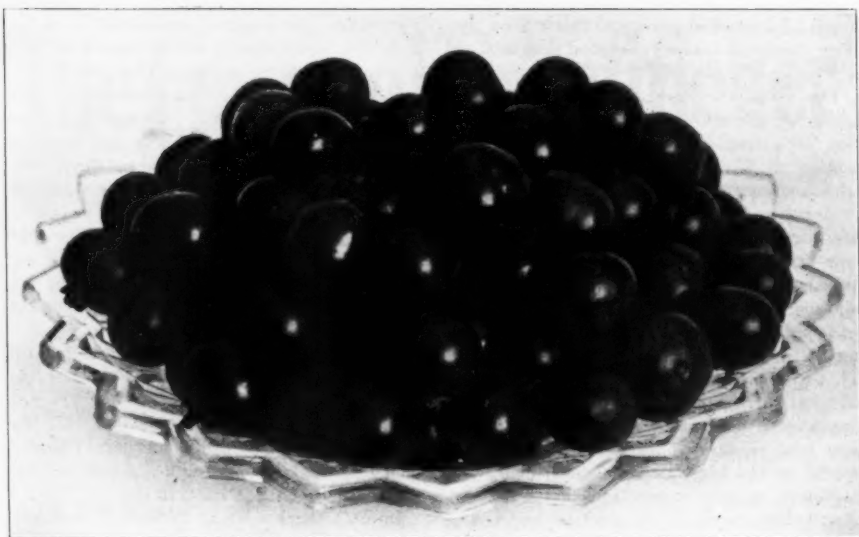
If we had the same certainty of bringing to light the authors of crime as exists in France or in the British Empire, we should not see such a vast disproportion between the number of murders in this country as compared with other countries.

Solanum Nigrum—A New Fruit

If, as Dean Swift remarked, the man who makes two blades of grass to grow where but one grew before, is a public benefactor, then he who causes two pies to be baked where only one was baked before, might also be called a benefactor, provided the pies are nourishing and wholesome.

Now, it appears that some unknown benefactor of the race, somewhere in a rural county of the state of New York, has been following the example of Burbank by developing a new fruit; or, perhaps, to put it more correctly, developing an old fruit that was valueless into a new form that is not only valuable but nourishing and delicious.

This is quite in keeping with the experience of the past. Most of our food plants—grains and fruits—were, in their wild state small, tasteless, bitter or even poisonous. But, cultivation under the gardener's art has changed



They Surely Are Appetizing!

them in size, flavor, food value and general usefulness until they have become the bountiful gifts of nature for our nourishment and delectation.

Wheat, for instance, which is now the almost universal source of "the staff of life", was developed from a wild grass, small, and apparently insignificant. Our splendid apples—Spitzenbergs, Greenings, and a host of other varieties—have been developed by horticultural science from the little, stunted, wild crab-apple. The wild rose of the wayside hedge is the progenitor, under the gardener's skill, of the American Beauty, almost rivaling a cabbage in size. So the luscious egg-plum and the green-gage point back to a humble ancestry in the wild plum. The same thing can be said of our cherries, peaches, apricots, pears, etc. They all have a history of development from some insignificant wild fruit to the wholesome and delicious luxuries of our gardens and orchards.

The fruit to which I referred above is the berry of the wild nightshade, popularly known as Deadly Nightshade, of which the botanical name is *Solanum Nigrum*. It has the popular reputation of being poisonous; but, whether this is a fact as regards the wild plant or is merely one of those popular beliefs that are handed down from generation to generation, I do not know. Many plants have had that reputation of being poisonous, and better knowledge has dispelled the erroneous

idea. I can remember when the tomato was considered poisonous and was only cultivated because of its bright color. It was customary to place several upon the mantel shelf or similar place as ornaments. They were known by the name of "love apples."

Now, as I said, I do not know whether the berry of the wild nightshade is really poisonous, and I would not care to settle the question by experiment on my own person. But it is certainly true that the cultivated berry which has been developed from it is quite wholesome and free from poison. The wild berry is eaten by birds, apparently without harm, but this is no proof that it would be harmless to the human species. There are other instances of birds being able to eat substances that would be noxious to other animals or to human beings. However, these cultivated berries of *Solanum* have been so extensively eaten that their wholesomeness is thoroughly established. I, myself, ate them daily for two weeks.

The wild berry is small and black, about as large as a small pea. The cultivated fruit is also black, shiny, and very firm. It is as large as a small cherry or a small Concord grape. It is not good to eat raw; but, if cooked, crushed into a pulp, and properly sweetened, it has a rich, black juice and a delicious flavor that makes it an excellent fruit for pie. It is so firm that, if baked in a pie without crushing it, the sugar will not

properly penetrate it.

Some of its good points are as follows:

1.—It bears fruit the same year the seed is planted.

2.—It is a prolific bearer; only a small garden plot is needed to produce berries enough for a family.

3.—It is a good shipper, being so firm. I had a quart of these berries sent 500 miles by parcel post; they were six days on the way, and the rough handling in the mail did not harm them. None were crushed or decayed; they arrived in perfect condition.

4.—They may be canned for winter use.

5.—Their flavor in pies is equal if not superior to that of blackberries or huckleberries.

The American fondness for pie is often treated as a joke. I can see no more reason for being amused at it than at a taste for roast beef or ice cream. If properly made, fruit pies may be as wholesome as any other food, and much more so than some foods in common use. Variety in food is not only agreeable but wholesome. I think, the fact should be more generally known that food that gives gustatory pleasure is more readily digested and, therefore, more wholesome than food that is tasteless. The experiment can easily be made by comparing a meal of dry bread with one of bread, butter and jam; the former lies heavy on the stomach, the latter is digested with comfort and satisfaction.

So, I have no apology to offer for trying to help put before the public a new addition to our resources in the food line. I am quite certain that those of my readers who will try the new fruit will be glad that their attention was called to it.

The accompanying illustration shows the berry a little smaller than its natural size.

It only remains to select a convenient popular name for this fruit. Several have been suggested: Garden huckleberry, garden berry, pie berry and others. The first might cause confusion because it is not a huckleberry; the third might do and yet it is a little indefinite. Usage will probably gradually establish a name.

I might mention that it is an advantage to start the seed very early in spring under glass, and later transplant like tomatoes.

Readers who would like to try this new fruit can obtain a packet of 50 seeds by sending 15 cents to *Vick & Hart, Seedsmen, Rochester, New York*. (2 packets 25 cents.)

Not Cuticura but the Cooties Cure

The *Border Cities Star* makes a suggestion

that might be of value in these days of "Red" propaganda and general tendency to ignore the lessons that experience has taught the world. It appears that a well known United States senator, whose opinions are at least pink if not quite Red, is at present travelling in Russia. A party of travellers returning from that modern paradise report that they met the senator on a train between Moscow and Petrograd. He was in a compartment of a sleeper without mattress, bedding, or pillow, and was engaged in a sanguinary battle with those friendly little creatures which the boys in the trenches used to call "cooties"; in other words, to quote the language of the trenches, the senator was "reading his shirt".

It would be interesting to know what he thinks of the blessings of soviet government by this time. There is nothing like personal discomfort to tone down the wild assertions of the theory-monger. It is easy to praise communism from a safe distance, when one is surrounded by the comforts of civilization, eating three meals of good food a day, and enjoying a clean and sanitary bed at night. But it has a tendency to open a man's eyes and set him thinking, when he is brought into personal contact with the conditions that are the logical result of an irresponsible government of ignorance, cunning and greed. It may need a lesson of this sort to show certain theorists what may be expected when unprincipled and cruel men grasp the reins of power. It is to be hoped that the spectacle presented by Russia, since the collapse of law and order, may in time prove a lesson that will at last sink even into the brains of our radical senators. Hurrah for the cooties!

Questions Answered

G. S. When and by whom was telegraphic communication across the Atlantic established?

Ans. Cyrus W. Field, a New York merchant, succeeded in laying the first transatlantic cable between Newfoundland and Ireland, in 1858. On August 16, of that year, messages were exchanged between Queen Victoria and the President of the United States. The cable ceased to work two weeks later, September 1.

In 1865, Field made another attempt to lay a more perfect cable; but, in laying it out, too much strain was put upon it and it broke, the end sinking to the bottom in mid-ocean. The next year, a new cable was successfully laid all the way across. The ship then returned to mid-ocean, fished up the broken end of the

[Concluded on page 909]

Good Medicine

Let us learn as we go, but not forget what we know

Conducted by GEORGE H. CANDLER

A Very Human Document

"There is a Destiny that shapes our ends."

THERE is—I know it! Just about four weeks ago, Old Man Destiny came and meddled with one of my favorite ends and, not satisfied with shaping it until it resembled one of those round, red sausages made in Milwaukee, Wisconsin, U. S. A., from which (when you boil it and stick in a fork to see if it is done) the juice squirts in your eye, by such "shaping" and other nefarious practices, pretty nearly sent me to my ultimate destination—wherever that may be.

A whole lot of interesting thoughts (and things) occurred to me while Destiny was keeping me flat on my back, with the right lower extremity elevated at an angle of eighty degrees and feeling much larger and a thousand times more sensitive than all the rest of my anatomy put together.

Some of these (not ALL), I will record for the benefit of my contemporaries and posterity; moreover, I shall throw some light on persons and things which may never have had that particular illumination thrown on them before.

To begin at the beginning, let me state that Destiny worked either through a profiteer manufacturer of rubber boots or a still more inhuman bootlegger of the fluid type. Against each, the evidence has been presented, weighed carefully, and the only verdict we could reach was of the Scotch variety, i. e., "not proven." Personally, I lean towards conviction of the rubber bootlegger—there was a visible hole in his product.

Anyhow, a few days before our story opens, I went off shooting ducks. To accomplish this feat, it was necessary to drive many miles at night, get into a boat at the drear hour of 3 a. m.; row more miles; land, wade through a mile of slough and then sit in a blind till the sun turned the East pink. He does this

now about 6 a. m. Believing, poor boob, that Uncle Samuel loved "the boys" with a great and avuncular love and had taken every pain to assure their welfare and comfort while killing Huns in the late unpleasantness, I had invested in a pair of Army waders, "cost to the Government \$11.00 and now being sacrificed for \$5.00." I should have known better, but I thought that the boots *might* be superior to the Jam and other tinned (alleged) cosmestibles that "the boys" were fed up on to rouse their fighting spirit, and that they would at least wear as long as the other "army regulation" truck which I (after "the boys") had become so painfully familiar with.

Thus, duly accoutred in the "waders," I stepped, in the darkness before dawn, trustfully out into the chilly slough and blithely but blindly proceeded blindwards. The water rose, reached just below each patella, then above it and there (on the *left* side) just naturally found the place where the manufacturer had economized, on rubber, and ran in (and down) till the boot (wet-tight below the marker's water line) contained one full quart imperial measure, as well as one foot. Naturally, under the circumstances, I had done what I set out not to do and this one of my feet had become (and remained) distinctly "damp."

The long hours passed, the ducks flew, the guns cracked and at last 'twas noon, and homeward we wearily plod. I think "plod" is good—that's what we did—*plod*; and "squish". Arriving ultimately at the place from whence we had gone, we met sundry inquiring and admiring friends. To them, the boot was exhibited and they thereupon prescribed "*something* in a little ginger ale" for the wet foot. You know those simple old-fashioned remedies against snake bite and chills? And you know, one's family warns constantly against getting your feet wet. Well, one ginger ale with *something* in it was taken, as a

corrective; another admiring friend advised a repetition and, after that, the patient—foot now warm—himself demanded a third for safety. From then on, the fleecy clouds floated peacefully across the cerulean sky and all Nature was in tune—indeed it was: a most beautiful tune moreover. How could I tell that Destiny was hiding in a boot-leg of some sort and, being thus ignorant, avoid one or t'other? How indeed? Stern moralists may remark that one could be better occupied at 3 a. m. than in wading through sloughs to wantonly slaughter ducks. Others may not object to the slough but will point an accusing finger at the ginger ale. They may be right; I shall omit it in future. Anyhow, with nice, dry, wool socks on, I came home (after having with pomp and ceremony incinerated the "Army waders") and toiled, as only I toil (at least I often so believe) for three full days. I felt *gorgeous*. Then, upon the fourth night, I sat down in the sweet quiet of my home (after disconnecting the radio and driving everyone to bed) and pounded luminous ideas out of the typewriter. For me, ideas flow most lucidly and luminously from 10 p. m. till sunrise. Often I have thought I was almost clever at 2 a. m.; but, by 10 o'clock, when I went out into the wicked world again, I knew that I had merely had a nightmare. *Sic transit gloria mundi*.

At midnight of this fateful day, I was "going strong": lambent words fairly leaped into line and I feel that, if nothing had happened, the thought-thing I was creating would have been read by weeping grandsires and lisped by little innocent children long, long after I was dust. Yes, it was as beautiful as *that*. And then, all of a sudden, my right lower limb (the leg) began to dominate the picture. It felt large and numb and like a hive of bees—very, very nervous bees. Not a bit like the old reliable leg that had gone wherever I went so many, many times. I tried to get up and investigate this phenomenon, and promptly fell down. How would you like to promptly fall down when you tried to stand up at about 3 a. m.? I objected strenuously. Somehow, I managed to crawl and haul myself upstairs and into bed. For lo, these many years, I had been putting other people there and, now, the force of habit made me seek similar safety. Then I looked at that leg. I could not believe I had ever seen it before. Judiciously, I asked myself how I could possibly have a "milk leg" and, after deciding quite definitely that it was a phlegma-

sia alba dolens, arrived at the incontrovertible conclusion that I had entered upon another incarnation and changed sex, or something. Anyhow, like the old lady of the ballad, whose skirts were "cut all round about up to her knees" and who "began to shiver and then began to sneeze," and cry "if this be I, as I believe it be, my little doggie he will come to me," I woke people up and demanded to be identified. And they, with one voice, insisted that I was still I, but decidedly blemished on the right (or "nigh") lower aspect.

Please bear in mind that the last "something" in the ginger ale had been consumed four days before, that I am ordinarily a most abstemious person and that it was the left boot-leg which had the hole in it, whereas it was the right leg which had suddenly assumed such ridiculous proportions. At this time, came the chills—and increasing *dolor*. The *rubor* and *calor* had also come to stay. 'Twas a stormy dawn, mariners, and angry clouds scudded over the horizon all that day. My foot was pointed Heavenwards and I thought I was certainly going that way as an entirety. At least, I had hopes.

Then came the *confrères* and, closely after them, the condolers and the floral confectations. Some kindly hearts thought, I might as well smell their odor (I mean that of the blossoms); so, sent their gifts early. Others, of the more conservative type, inquired as to conditions and made reservations at the florists. One particularly dear friend called up and asked "how I wanted my wreath", and I told him "sunny side up." He promptly sent me something which had nothing to do with flowers at all but had a very familiar (and nice) smell. The stern *confrères*, however, wouldn't let me have any. I have decided that, in my future dealings with the sick (milk-leggers and all), I shall be *firm*, perhaps, but not *too* stern. What boots it?

Then, from the grave and learned professional friends, I demanded a diagnosis. They raised their eye-brow half an inch and remarked, "phlebitis." That was obvious. But, "why a phlebitis?" I asked—"how come?" They said many, many words, but I don't know—and they don't know—why or how, to this minute! We talked about the holey boot and the possibility of that ginger ale being contaminated by bootleg in some way. But the bum boot was the left one and the ginger ale was "guaranteed" and had hurt no one else. So, what had they to do with it? THAT is what I still want to know;—*still*, I said.

About this time, came the Serologist—a pessimistic person who dabbles, even in his dreams, with antigens and complements. Said he, "Let me see the leg." He saw it—from Scarpa's triangle down to the distal phalanx of the great toe. Nothing was hidden from his eye. "Ha!" he ejaculated, and again, "Ha!" Then he requested that I uncover to him my past. Now, I deemed *that* indelicate. I had already revealed a whole lot and I didn't think it proper to go further. Stubbornly he persisted, however, pointing out that I *might* be a Doctor Jekyll and Mr. Hyde (he had known so many of them), and a Wassermann might (Who could tell!) reveal the fact that, in some unguarded moment of my career, I had chased something unchaste—or words to that effect. Thereupon, I put my hands together and, with sobs, confessed that I really had nothing of that kind to tell about—that I had led a distinctly hum-drum and proper life and knew a great deal more about women in the abstract than in the concrete. Finally he went away, unconvinced and murmuring something about "losing my leg to save my life." These serologists make one tired anyhow!

Then came another chap and *he* insisted that all my teeth ought to be pulled out instantly—to save my leg, I suppose. "Streptococci," he said, "virulent streptococci: They must come from *somewhere* and why not from the teeth?" I suggested that they might come from the appendix, and he cheerfully agreed to have that out too.

There and then, I began to have visions of going through life with one leg, no teeth (except removable ones), no appendix and the rest of me shot full of Arsphenamine. Better than that, I thought, to become an angel of *any* color. So I turned over, consigned everyone to perdition and resigned myself to whatever might happen. Anyhow, at that time, such avoirdupois as I had was slipping away at the rate of half a pound every two or three hours, and it seemed it might as well all go.

THEN, in the form of a "delegation," came Healing! Slowly and majestically into my prison cell marched these individuals; around my stricken cot they ranged themselves and told me how good I looked—under the circumstances. I knew that, in just the same order but with a somewhat more serious and grievous mien, they would complacently walk around my waxen form and say in hushed tones, "How natural he looks!" And then and there I decided to fool 'em and get well.

I'd rather *be* "natural" than *look* it! No "milk" or other kind of leg was going to kill ME. No steady tramp of feet was going to resound YET through *my* front room and no Ecclesiastic with the tremolo stop out was going to tell the world what a noble soul had passed unrecognized from its midst. Not if I knew it. Moreover, no one was going to shoot my Parker 12-gauge when the ducks came in this year—or next. There were other weighty reasons, too, why I hesitated about leaving—But I said at the very beginning that I wouldn't reveal *everything*.

So, to the one *confrère* who has real medical horse sense (even as my own), I suggested that we just go to work and do things—rational things. We did 'em and, as a result, at the end of two weeks, dented, diminished but determined, I was "out and about" once more. But, believe me:

"You may break, you may shatter that leg if you will,

But the scent of Guimethol will cling to it still."

However, the ducks are still flying, Thanksgiving approaches, and, then, even "If Winter Comes," I know Spring will soon again trip in and the big black Bass will strike at a surface lure. So, perchance, "All is well with the World": as well, that is to say, "as could be expected under the circumstances." Of course, we see the profiteers still spending their profits; we see surplus Army goods being distributed where they will cause the most annoyance and distrust in official inspection, and we at least *hear* of the merry bootlegger going upon his wet, wet way and cackling more and more derisively at the Volsteadians. If he only wouldn't put methyl where ethyl should be, one might have more sympathy for him. As it is, he sells Haig and Haig when there "ain't no such thing," produces Gordon Gin in original containers (made within the week) and purveys French Cognac distilled from Iowa corn. He ought to be compelled to be more careful. Some of these days, he'll get his packages mixed, drink from the wrong bottle himself and be "translated." Then, *what* will folks *do*?

And that logically brings me to another subject which received a good deal of consideration when I was lying, very much like a Green Sea turtle, helpless on my back with one flipper in the air.

Why Are People So Afraid to Die?

During my rather active career, I have, naturally, seen a number of fellow-human

beings pass away. Some of them have slipped off with a smile upon their faces, others have fought Death to the last gasp, praying the Doctor earnestly meanwhile to "save them"—if only for another hour. The natural physical fight against dissolution every physician can understand; the widespread and very terrible *fear* of Death is not so easy of comprehension—unless one looks far beneath the surface of things.

One might think that when, to the rather drab daily struggle most people have to make to keep things going at all, there is added constant pain or absolute disability, the desire to rest—to have done with it all—would entirely sink the fear of the unknown. Yet, we see the very old, the decrepid, the hopeless invalid hang on to Life with pitiful determination and—most of them, at least—dreading the moment when they *must* depart. I am quite aware that somebody will here quote me Shakespeare's soliloquy, "To be or not to be" and someone else will say "All that a man hath will he give for his life." True, provided Life still offers him something worth while. But, when it doesn't, or when it appears impossible to longer evade the Grim Messenger, why are people AFRAID to go? Because, in my estimation at least, they are like children who have been told by idiotic parents or others that "the bogey-man will get them" in the dark. Fear of an entirely harmless thing has been *instilled* into them. Children intelligently brought up are *not* afraid of the dark: there is no "bogey-man" in their minds and they go serenely where their less fortunate companions dare not venture. So he, who has been able to cast from his mind the cruel pictures of an avenging God, a rampant Devil and a bottomless Hell, fears no more to die than he does to slumber. Even those otherwise sustained by the Xtian faith often falter at the last moment, because they have been taught "after Death, the Judgment"; and they will persist in regarding their Creator as a vengeful Deity, not as an all-wise and merciful Father. They have had, all their lives, verses from the Scriptures hurled at them to "make them

behave" and the threats, unhappily, too often drown the promises.

Death of the physical being is just as certain and natural a process as is its birth and, surely, the future of the spiritual being may be left with perfect confidence to the single source from which anything spiritual could come? To me, Man's interest in everything which we can sense ends when he ceases to breathe—what any ethereal part of him may become, can not, I most firmly believe, be influenced in any manner by the mundane actions of the combination.

Countless billions of men, of various degrees of intelligence, have passed onto and from this planet alone. If *we* have souls, each and every one of them must have had. And, yet, only a very, very small proportion of the human race has possessed (or possesses) even an inkling of the faith which, unhappily, today, so often makes quite decent people—as we know and judge them—*afraid* to die. Why cannot he who believes in an Eternal Father trust him as he would have trusted his own or as he would have his children trust him? Even if conscious of having erred, can he not go unafraid, confident of understanding and with the simple request:

"Father, take Thou my hand and lead me safely home; for I have lost my way?"

The man who declines to believe in anything but his total extinction at or by Death surely ought not to be afraid to become nothing. Further, those who feel (and sometimes insist upon asserting) that they are "nothing but poor worms," now, might reasonably hope that they might be something better than that elsewhere.

No, Death may disturb our plans. His approach may make us feel sorry for those to whom our existence has meant much or everything. But, no rational being—to say nothing about the "good Christian"—should have the slightest *fear* of dying when his call comes.

To "linger superfluous upon the stage" is, I, at least, think, infinitely more to be dreaded than a dignified and timely exit.

"Here endeth the Lesson."

MAY Christmas bring you joy and right good cheer
And both abide with you throughout the coming year!

Let's Talk it Over

Dr. Bryce's Talks

A Christmas Eve of Long Ago

THROUGH the kindness of the Editor I have been granted the privilege and pleasure of talking to the readers and friends of THE AMERICAN JOURNAL OF CLINICAL MEDICINE for more than a year, and with this issue I complete twelve consecutive months of my "Talks" to its readers. Now, I am just thinking what would be the best thing I could say to my friends in this just-before-Christmas number of the Journal. There is one thing about Christmas that seems to strike us all very much alike, and that is: We all somehow feel that we would like to do very much more than we are able, to bring joy and happiness to those around us. This feeling is contagious. It is a time for loosening the purse strings, for forgetting old scores and bringing joy to those who see no hope ahead. I wonder if Dr. Achard will let me take enough of his valuable space to tell a little story of a medical student and his experience Christmas eve just fifty-two years ago? I am going to risk it anyhow—he has been most indulgent with me heretofore, and I might just as well be hung for a sheep as for a lamb!

The night of Christmas eve caught me in the dissecting room working hard to finish up my last "subject" in time to go out and mingle with the gay crowd of roisterers who were holding high carnival in Broad street. Every student but one had washed up, bidden us good night and left. The party remaining was a young man I would have taken to be twenty-four or five years of age, and I only knew him by sight as a student of the college. He had a pleasant address and was a finely developed and handsome man with unmistakable marks of the French Creole. He was reserved and dignified but approachable and evidently a man from well-bred ancestry. His table was across the room from mine and I noticed that he seemed bored and ready to quit; and yet he seemed to be uncertain about it. Finally, he arose, pulled down the old

oil-cloth cover over his "subject", went to the sink and took off his gown and washed up. I had never spoken to him except to bow to him casually in passing; for, I had never heard his name. He stood by the register for a while and did not seem to care to leave. As he appeared to be lonely, I pulled up a high stool near me and beckoned him over. He smiled and took a seat on the stool and wanted to know if it would be long before I was ready to leave? I told him that I would not be very late, as I wanted to take a couple of hours strolling up and down Broad street and watching the crowds. "Can I stay here and go along with you?" he asked.

"I will be glad to have you; but, had we not better have speaking acquaintance?" I reminded him.

"Oh, you mean my name? That involves a confession and a story of some length," said he, "but, if I am going to claim your friendship, I should make you my confidant," he continued and then gave me the following introduction to himself:

"I matriculated in this college as Thomas Jackson and to all who have made my acquaintance in this city I am known by that name. I am from New Orleans, and my right name is Robert Walker. My father's name was John Walker, and he was a prominent attorney and a wealthy man. My mother was a beautiful woman and loved me and little Mary, my two-year-old sister, with her whole soul. Of course, this is the observation of a little boy only five years old, for I have never seen or heard of my dear mother and little Mary since I was five years old. My last recollection of her was, when she came one morning into the nursery, dressed little Mary for going out and put on her travelling suit, made the coachman take out her trunk, and came to me and kissed me and told me to be a good boy until she came back for me. She left me in charge of the nurse. She brought my little sister to me and told me to kiss her good bye. Then they got into the carriage and were driven off.

"My father was at his downtown office and knew nothing of it until he returned to late dinner. He found a letter she had left and, after he had read it, he took me up in his arms and said, 'My dear little boy, you are all I have left, and we must love each other and stick together as long as we live.'

"I never pressed my father for an explanation of my mother's strange conduct, for, it seemed to distress him when I made any allusion to her, and we lived as two pals. He gave me a liberal education and, when I was twenty-one and had graduated in law, he admitted me into his office as his partner.

"One day, during his absence from the office, a lady called and requested a private interview. Conducting her into our consulting rooms, she removed her veil and I recognized her as one of the handsomest and most popular actresses in the stock company of our city. She stated that she had come as a matter of duty to give me certain information that might partially atone for an unfortunate indiscretion of hers in her earlier life. She informed me that, when a mere girl, she had married against her family's wishes, that her husband was a flashy gambler, soon got into serious trouble and was indicted for trial and was confronted with a long term in the penitentiary if the case went against him. My father was prosecuting attorney and she went to his office to plead with him to try to suppress the prosecution. In her distress, she threw her arms around my father's neck and, calling him John, she begged him not to desert her now. My father embraced her affectionately and, kissing her, told her to go home and he would do all he could for her.

"It happened that my mother opened the private office door quietly and witnessed the compromising attitude of the two. She departed without my father having seen her, but she saw her and made no mention of it to my father. After she learned that my mother had left my father and evidently wished to evade him for the future, she was certain that it was in consequence of what she had seen at his office. She tried in every way to find my mother and convince her of my father's innocence of any infidelity towards her, for, she said, 'I am your father's sister'. She had come to tell me that she thought she saw my mother in this city when she was playing here recently and advised me to live here under an assumed name until I found her.

"Then you are my aunt?"

"Yes, but remember, my family has outlawed me because I married beneath my

station,' she said bitterly.

"When I told my father of the interview, he said that her story was correct and he hoped I would take her advice and try to locate my mother. We began to straighten up our business, so that he could spare me for a while, but he seemed to have a presentiment that he would not live long, and hastened to arrange many important matters that would affect me if anything should happen to him. My father died suddenly very soon after we had completed our plans for my leaving. He only had time, when stricken, to tell me to never cease looking for my mother and, if I found her, to care for her as a son should and to be an affectionate nephew to 'poor Nina,' his sister, who had revealed herself to me. And here I am tonight alone in the world and just hoping that I may at last find my mother and sister and pluck from her heart that poison of an insane jealousy that made her abandon husband and child."

I had finished my work and, drawing down the covering on my "subject", I soon washed up and we two started to go up Broad street and mingle in the crowds that were bent on fun and frolic and surging up and down indulging in all manner of good natured sport.

Christmas eve in the Old Dominion, fifty years ago, on Broad street in the good old city of Richmond, was something to be remembered by all who participated in the celebrations of those days. The liberty of the city was given over to the merry-makers, old and young. The police were instructed to arrest no one except for some criminal act, and to help all drunks home. There were no street cars, no telephones, no prohibition laws, and everything was wide open and free in the well lighted bar-rooms that could be found in every block. The boys had bonfires in the middle of the street. Firecrackers, Roman candles and rockets filled the air with flames and noise. The happy throngs were yelling, singing and jostling each other and everybody seemed filled with the real Christmas spirit.

As my friend and I wedged in and out, we saw other sights besides the smiling faces of the rollickers; for, now and then, we came upon a few who were looking wistfully into the toy shop and confectionery windows and passed on, evidently unable to get what they would have liked for some little one who was looking forward to the Christmas gift. As we paused in front of the most extensive toy shops in the city, I noticed that Walker's attention was drawn to a young woman hold-

ing a little boy by the hand and looking at a little kind of velocipede that was quite popular for children of his age. She shook her head when the merchant gave her the price and, with deep disappointment showing on her face, led the little boy from the store.

As she passed us, Walker looked closely at her and turning to me said with much agitation:

"By God, he shall have that thing this night."

"How are you going to do it without offending her?"

"We will follow her home and I will know where to send it," he said.

"But why are you so specially interested in this case?" I asked. "There are many others that we have seen tonight."

"I do not exactly know myself, but I have had a feeling all this week that I am near my own dear ones, and my heart has suddenly gone out to that young woman whose features remind me of what I remember of my mother," he said.

In the meantime, we had kept close behind her and, instead of going to her home, she went into an uptown pawnbroker's shop. We entered and, while looking over some rings with a clerk, observed that the young woman was trying to get a loan from the proprietor on a small watch. After much haggling, she handed the watch to the old Jew, received a five dollar bill and left the shop.

Walker asked the old fellow to let him look at the watch a moment, and also inquired if he knew the lady and her residence. He said he had known her and her mother for several years and gave him her number and street, after being assured that he might bring her good news. The watch was a beautiful little thing and upon the inside of the case were engraved the letters "J. W. to Mary".

"This is my mother's watch," said my friend.

"I reckon not, she is a vidder and her daughter is a vidder too and she haf no kin anyveres," said the Jew.

"What does she do for a living?"

"She keeps a nice boarding house and she is a fine lady but mighty poor all the time."

"What is her name?" asked Walker.

"Mrs. Henderson."

We concluded to call upon Mrs. Henderson and, under the pretext of securing lodgings, find out whether or not she was the mother that he had sought so long. We found the place on a quiet street and, as we approached the door, we noticed a man coming out and

heard him saying to the lady in a very harsh tone that he would turn her into the street unless she paid the rent next week. The distressed woman followed him on the porch and begged him to wait just a little longer. Walker must have been pretty certain that he had found his mother; for, he was suddenly and uncontrollably aroused, and, being a man of powerful build, he seized the man in the collar, dragged him in the hallway and, under the light and in the presence of the terrified and astonished lady, said: "Take off your hat and apologize to this lady for your rudeness or I'll throw you down those steps".

The apology was quickly and amply made and, turning to the lady, he said, "Madam, how much do you owe him?"

"Twenty-five dollars."

Handing her a roll of bills he told her to pay "the brute and take his receipt and let me kick him out".

The bewildered woman unrolled the notes, paid her rent and handed the balance back to her benefactor, who told her to keep it for her Christmas gift.

"In the name of heaven, tell me whom to thank for this timely help."

"I am Robert Walker, of New Orleans, in search of his mother and little Mary, and who are you?" he said.

I said to the astonished landlord that I thought it time for us to leave, and we both bade them good night and left them alone. As I was descending the steps the lady called me back and asked me to take my Christmas dinner with them on the morrow, and she added, "My son will spend tonight with his mother".

The rent collector remarked: "It was lucky her son came when he did, but a damn sight luckier that I got off so easily".

Walker believed in presentiments, and I have much to make me rely upon strong impressions; but, one thing impressed me more forcibly than the happy ending of his long search for his mother and that was, the terrible price we pay for yielding to the promptings of an insane jealousy.

C. A. BRYCE.

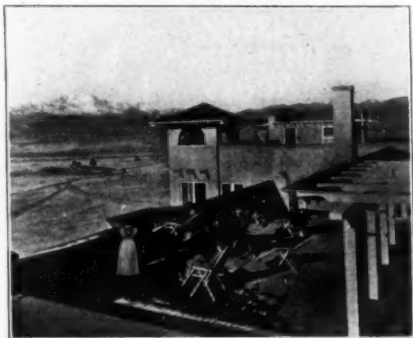
516 N. 10th St., Richmond, Va.

CLIMATE AND TUBERCULOSIS

Not so many years ago, the advice commonly given to the sufferer from tuberculosis was, "Go west and rough it". Of those who followed this sort of suggestion, some, to be sure, did recover in spite of the "roughing

it". There was supposed to be some sort of magic in the high and dry climate of the west which could arrest the development of tuberculosis, irrespective of the work and life led by the patient.

Investigations carried on by the National Tuberculosis Association and its 1200 affiliated organizations in all parts of the country have established the fact that, speaking generally and with certain rare exceptions, tuberculosis, if the treatment is begun in time, can be



Roof Garden of Cragmore Sanatorium

arrested in any climate, provided the patient is given the proper care which includes the three great fundamentals of sufficient rest, good food and fresh air. This conclusion is based on the findings of world-famous authorities on tuberculosis and the records of sanatoria located at all points, from a few hundred feet above sea level within sight of the ocean to the mile-high sanatoria in the heart of the Rockies. Therefore, the Association, as part of its widespread educational effort, has tried to impress upon the victims of tuberculosis that, unless they have sufficient funds to provide for their care anywhere, they should take the treatment at a sanatorium near their home town.

In spite of this advice, there are literally thousands of persons who call themselves in many cases "cure chasers", who wander from one section of the west or southwest to another, in an effort to find what they call an ideal climate. These are quite distinct from the well-to-do patients who can afford to pay for proper treatment, and they are in reality indigent migratory patients who find it necessary to apply for assistance to municipal agencies in the various places where their wanderings take them.

An investigation recently completed under the auspices of the National Tuberculosis

Association has covered the cities of Colorado Springs, Denver, El Paso, Phoenix, Los Angeles and San Antonio and shows that a total of 7,319 tuberculous individuals were cared for wholly or in part by municipal agencies in those cities in the course of a year. Thus, there was on an average one indigent tuberculous person to every 155 of the entire population in these cities.

How far these were cure chasers of the indigent migratory tuberculosis type, was made clear in the report of Miss Jessamine S. Whitney, Statistician of the National Tuberculosis Association, who says:

"Sixty-three percent of all the tuberculous in the six cities, for whom length of residence was known, had resided there less than two years at the time they applied to the agency. I am inclined to think that any person who has resided less than three years should be classed as migratory. If this division is made, then 75 percent of all cases can be classed as "non-residents". In the Denver study, even among the 484 classed as residents (having resided two years or over) all but 73 had come originally as health seekers, or with a member of their family who was ill."



M. W. A. Sanatorium, Colorado Springs

The term "cure chaser" is self assumed and reflects the optimism with which these thousands leave their homes and friends and set out to find a climate which agrees with them. At the same time, they expect to find there some form of "light outdoor work" by which to support themselves. Speaking generally, such work does not exist or not enough of it to furnish jobs for more than the merest fraction of the cure chasers who arrive by scores every month in many western and southwestern cities. Failing work, the natural result is that, sooner or later, many of these unfortunates will be obliged to turn for help to the welfare agencies of the cities in which

they find themselves stranded.

As an indication of the fact that a wrong idea will persist in spite of powerful educational forces brought against it, it is interesting to note that more than half of this migration of indigent health seekers come from a relatively small group of states. These are, in order of the number of cases recorded—Illinois, New York, Missouri, Ohio, Pennsylvania, Michigan, Indiana, Kansas, Nebraska, Oklahoma and Minnesota. Texas and California were also given as legal residence in a large number of cases, but the former only in the Los Angeles records and the latter for the Texas cities. So, these furnish an example of persons without funds to justify their traveling and shifting between two states in quest of the same thing—an ideal climate for tuberculosis.

All this has been known in a general way for years; but the report just prepared, as a result of the investigation, gives the National Tuberculosis Association and its affiliated organizations further data which may help in dissuading tuberculosis patients from starting out on a fruitless quest. As far as the records are available, the mortality among the indigent migratory or "cure chasers" was a ratio of one death in every eight cases. Yet, more than half of those, who came to municipal agencies seeking aid, afterward evidently moved on to some other place, for 54 percent of them dropped out of sight. Of the remainder of the records studied, 13 percent had died, 10 percent were definitely known to have moved out of town and only 23 percent were still in the city.

As might be supposed, the majority of the "cure chasers" are men. The report shows that 72 percent of the non-resident persons who applied for help, in the cities mentioned, were men and only 28 percent women. Also, 70 percent of the men came without their families, while only 29 percent of the non-resident women were alone. As to the time when the "cure chaser's" funds run out and the real tragedy begins, the records indicate that 38 percent of the men applied for help within a month after their arrival in the city of their hopes, while only 19 percent of the women made application as early in their stay.

To end this tragedy, with all it implies of hardship, homesickness and physical suffering, is one of the many tasks which the National Tuberculosis Association has undertaken in cooperation with its affiliated organizations. In the fifteen years since the Association began its work, the death rate from tuberculosis in this country has been reduced from

200 for every 100,000 population to about 100 per 100,000. Yet, there are today over a million active cases of the disease in the United States and the number who died from it last year was no less than 132,000. Hence, there is still much to be done if this is to continue



a winning fight. The public can help by purchasing Tuberculosis Christmas Seals, the little one-cent stickers which provide funds whereby the work of the Association and its affiliated organizations is financed.

HOW TO ENJOY POOR HEALTH

Don't you know a lot of people who "enjoy poor health?" Whenever they feel a little better in the morning they are unhappy about it all day. For the benefit of people who wish to enjoy poor health, the following set of rules has been drawn up. If they will religiously observe these rules, they may be assured not only of persistent ill health, but of an early grave.

1.—Encourage the flies in every way possible. Remove all screens from doors and windows, and leave plenty of stale food around. A little garbage helps. Encourage the flies to come to the table with you and share your meals.

2.—Throw away your toothbrush. The toothbrush is one of the deadliest enemies of poor health.

3.—Whenever possible, use a common drinking cup at a public fountain. Even if you are not thirsty. There are dozens of diseases that are interesting to talk about that can be contracted in this way.

4.—Buy patent medicines in large quantities. Some of these, unfortunately, are compara-

tively harmless, but, by experimenting with a dozen or two, it is usually possible to impair some of your vital organs beyond recall.

5.—Eat heavy meals at irregular hours. Pie eaten late at night is usually effective, particularly if it is the kind mother used to make. Lots of candy and good rich grease are recommended.

6.—Always get off street cars backward, and when you want to cross the street, pay no attention to traffic policemen or automobile drivers. If you drive a car yourself, try to keep up an average of thirty miles an hour through traffic.

7.—Never go to a doctor when you are sick. If possible, dose yourself with some old family remedy that somebody's grandmother told your great-aunt about. Carry a horse-chestnut with you to guard against rheumatism, and tie a string with seven knots in it around wrist to keep away pneumonia.

8.—Avoid fresh air. Sleep with the windows tightly closed. Remember that night air is the only kind there is at night, and that many people have permanently lost their poor health through sleeping with the windows open.

9.—Have nothing to do with the American Red Cross, or any of the organizations that are promoting public health. Oppose all local efforts to better health conditions, such as clean-up days, or attempts to appoint public health nurses. Be glad that you did not join the Red Cross during the annual Roll Call, November 11-29.

10.—And lastly, be sure that your wife or husband has the phone number of the nearest undertaker, and that there is plenty of room in the family lot at the cemetery.

The American Red Cross,
Washington, D. C.

NEURASTHENIA WITH COMATOSE STATE

About two months since I was called to see Mrs. B.—an elderly lady—age about 67 years, whom I thought to be suffering from neurasthenia. The symptoms were those of extreme exhaustion. Skin, especially of hands and feet, was cold and clammy—slightly moist. Face very pale and expressionless. Respiration very slow, though deep and regular. No valvular lesions in heart were found on stethoscopic examination. Pulse, 120 on first examination, dropping down in from 30 minutes to one hour to 80 to 90, probably the usual rate. I have never found it intermitting.

The patient complains of no pain in any way. No headache at any time; in fact, she says, she is comfortable at all times, except for general weakness. There is no irregularity of pupils in any way.

History: The trouble began about two years ago. Slight paroxysms of short duration followed by coma lasting sometimes one hour or more and coming on without warning. Sometimes, she is found in a sitting posture, sometimes across the bed and sometimes on the floor. Her mind seems good at all times, except for from 30 minutes to one or two hours following an attack.

I can find no evidence of kidney disease; neither can I attribute the cause to digestive derangements. Appetite and digestion seem normal. Family history, so far as can be recalled by immediate family, is good, nothing similar ever having been known in the family.

I wish to state that her husband died about two years since and that the beginning of her trouble was observed very soon after his death. In fact, her general health is claimed to have been good up to the date of death of husband.

These paroxysms are irregular in occurrence. Sometimes she has two or more in 24 hours and sometimes there will be intervals from two to four days.

Will some reader of this good journal suggest a probable cause bringing about these paroxysms? Is it cardiac insufficiency due to vasomotor collapse or do you suspect some form of epilepsy? Would you exclude epilepsy—age considered? Mr. Editor please give me a suggestion.

J. S. McMAHAN.

Clinton, Arkansas.

[Here is a splendid case history for the exercise of our diagnostic acumen. What is the nature, what the origin of the trouble described by Doctor McMahan? If our subscribers desire us to inaugurate and maintain a "Medical Seminar", we have here an opportunity to find out how many of them would participate in its exercises. What, in your opinion, is the diagnosis?

To be sure, a Medical Seminar would be at a disadvantage in so far as it often will be impossible to arrive at an exact diagnosis. Even in the case of an unfavorable outcome, autopsy is not always permitted and, thus, the pathological diagnosis can not be made. Still, there are great possibilities in a discussion of case reports, like the one submitted. Let us see what we can do.—Ed.]

A CHRISTIAN-SCIENCE REJOINDER

Editor, AMERICAN JOURNAL OF CLINICAL MEDICINE:

Since you have given circulation to a very unfair and unwarranted attack on Christian Science when you published an article entitled "Hemoptysis Treated Rationally and Then by Christian Science", in your November Journal, I must ask that you give publicity to this correction and refutation. The writer of that article, who is a physician, expresses doubt of his ability to heal a case of pulmonary tuberculosis and then intimates that he probably would have healed the case if the patient had not resorted to Christian Science treatment. At this point, it may be said that, when the medical profession is willing to assume all responsibility for the failures resulting from medication, then—and not until then—should it be considered ethical for doctors to criticize another system of healing. Hundreds of authenticated cases of healing of tuberculosis under Christian Science treatment have gone on record, and these testimonials are available to anyone who wishes to be convinced.

The critic stated that Christian Science is Mesmerism. Such a statement has no foundation. The theory of Mesmer has no divine spark. It is entirely the operation of the human or carnal mind, whereas Christian Science is founded, in premise and conclusion, on the divine Mind, on God's law alone.

The critic's insinuations with reference to Mrs. Eddy's domestic life are most untrue. Here are the facts furnished by proof. In 1843, Mrs. Eddy, then Mary Baker, married Colonel George W. Glover, of Charleston, South Carolina. One year later, he died of yellow fever. His widow returned to her paternal home in Tilton, New Hampshire. After nine years of widowhood, she married Dr. Daniel Patterson, a dentist. This marriage was unfortunate and Mrs. Patterson was granted a divorce in 1873. In 1877, she married Asa Gilbert Eddy, one of her students in Christian Science. Mr. Eddy passed away in 1882. Not one incident in her life—and the record is complete—could cloud her crowning example of pure womanhood.

That she cursed Dr. Phineas P. Quimby, as the author states, is false. Mrs. Eddy was grateful to Dr. Quimby because this mesmerist, through suggestion, relieved her of pain. (See "The Life of Mary Baker Eddy" by Sibyl Wilber.)

CHRISTIAN SCIENCE COMMITTEE ON
PUBLICATION FOR ILLINOIS.

Chicago, Ill.

[If the "hundreds of authenticated cases of healing of tuberculosis under Christian Science treatment", that "have gone on record", are of the same nature as the numerous cases of advanced and far advanced cancer that, it has been claimed, have been cured through the same agency, we must exercise our right of doubting the exactness of the claim. Neither carcinoma nor tuberculosis, among many others, are talked away or thought away. Even Divine intervention does not act contrary to the laws of nature. It is true that instances have been observed, of both diseases, in which spontaneous cure occurred, without any treatment whatever, whether medical or Christian Science. That, though is a very unusual occurrence.

The insinuation that the writer of the article in question, Doctor Dungan (this journal, Nov. issue, page 809), "expresses doubt of his ability to heal a case of pulmonary tuberculosis", is specious; as may be seen on reading the first paragraph of the Dungan article. The history of the case shows that the patient had done well under appropriate treatment, although he was refractory; and that then, on the advice of a Christian Science healer and against the strict injunction of his physician, he had left his bed. A severe hemorrhage promptly proved the justice of the medical advice and the foolishness of the healer's assertion. The patient died because he would not accept and act upon the directions of his physician.

The personal data, concerning the founder and, for many years, head of the Christian Science Church, Doctor Dungan undoubtedly took from Mr. Frederick W. Peabody's book, "The Religio-Medical Masquerade" (Boston, 1910), which was reviewed in the February, 1911, issue of CLINICAL MEDICINE. Whatever may be unpalatable in that information, must be laid to the charge of Mr. Peabody who is authority for it.

It would not serve any particular purpose to enter into a controversy as to whether Christian Science is or is not Mesmerism, in fact. The difference claimed to exist by our correspondent is merely based on assertion; and we must confess that it does not impress us as convincing.—Ed.]

TREATMENT OF CANCER

This painful affection, while hardly recognized as any more than a symptom of imperfect digestion on the part of the stomach and bowels, is one which causes the patient to be in continued misery during the time of exist-

ence. It is astonishing how little is said, in accepted works on surgery and medicine of this day, as to some definite plan for relief for the patient suffering from canker. The plan that I have used with universal success is, first to touch with pure carbolic acid, using for an applicator a match or tooth pick and exercising care to avoid cauterizing unnecessarily the surrounding membrane of the oral cavity, and immediately following the application by directing the patient to secure some of the little five-grain tablets of chlorate of potash, usually dispensed in little bottles at the drug-store, and allow one of these medicaments to dissolve in his mouth at six hour intervals.

J. A. DUNGAN.

Greeley, Colo.

DIABETES A BACTERIAL DISEASE?

Diabetes still occupies much of my thoughts. About two years ago, I wrote an article, giving it as my opinion that diabetes is caused by some bacterium, and I gave a report of cases to substantiate my opinion. That article was published in your *Journal* for February, 1922 (p. 121), and I have often wondered how the profession treated that opinion. I have continued to get good results from the treatment therein outlined and have the word of others that they have also. One doctor friend wrote me, last summer, that he had used it in twelve cases since reading the article, and that he had good results in all of them.

In that article, were two interesting cases I wish to rewrite, because I have late news from them. "Case 3.—Miss F. C. Age 20. Had never had any severe illness until in the fall of 1918, when she had influenza. Sept. 8, 1919, I found marked leucorrhea, irregular menses, catarrhal nose and throat. Glycosuria was pronounced and had been present for two or three years, according to her father. Her mother had died of diabetes. *B. coli*, *M. catarrhalis* and *staphylococci* were abundant. I gave her a course of Van Cott vaccine. After four months of treatment, the leucorrhea was less. The glycosuria was still present, but she had gained seven pounds. I gave her a diet slip and continued the vaccines. In June, 1920, the glycosuria was gone. She did not follow the diet orders, because they were distasteful to her. The treatment was discontinued for two months, then resumed as a safeguard. At that time, she had gained fifteen pounds".

Three years after the treatment, the patient was well and had no indications of a return of the trouble.

"Case 5.—Mr. E. M. Married. Age 38. Ht. 6 ft. 1 in. Wt. 123 Railroad carpenter. Had ordinary diseases of childhood. In the fall of 1919, he was in the hospital twelve weeks, with influenza-pneumonia. Left the hospital weak and worn, and very much emaciated. Did not recuperate under the usual care and treatment, became deaf and had attacks of blindness. A specialist found no eye or ear trouble and referred the patient to me. A lack of tone marked the whole clinical picture which was typically diabetic. There were a few boils. Glycosuria was so marked that the test solution did not need a second boiling—it turned orange throughout as soon as the urine was added. Sp. G. 1042, and the evaporated urine was syrupy. *B. coli*, influenza, and two types of diplococci were present. I gave Van Cott vaccine once a week, from March 20, 1920. The patient took up light work the last of May, 1920. I continued the treatment with short periods of rest to October first, when the glycosuria was gone, other symptoms had cleared up, and he had gained thirty-six pounds. He appeared normal in every way, but I gave him five or six more doses of the vaccines."

Over three years after this treatment, the patient was in good health and putting in full time at his trade.

Since the appearance of my first article, I am more convinced than ever that diabetes is due to some bacterium or to the effects of more than one. The treatment gets results and the patients stay in good health. The profession will be interested in a report of research work along this line by others. In *The Prescriber* (Edinburgh, July, 1922, xvi, 241), A. Renshaw and T. H. Fairbrother show that they have made elaborate study of the source of the acetone bodies eliminated in diabetes, and announce the discovery of an organism responsible for their formation. It has been known for some time that certain bacteria exist which are capable of producing acetone from starch or other carbohydrates, and it is recognized that this particular action is not restricted to one bacterium, but probably is due to a group generally known as "Amylobacter". The authors believe that the products of such bacterial fermentation in the alimentary canal might upset the glycogenic function of the liver, resulting in the excessive accumulation of glucose in the blood, with the consequent overflow elimination by the kidneys. They examined the feces of five diabetic patients and found an acetone-pro-

ducing organism in all of them.

The organism they isolated is a Gram-positive, rod-shaped bacillus, and is a facultative spore-forming anaërobie. It may be found singly, in chains of two to six, or may lie parallel. The authors suggest the name '*Bacillus amyloclasticus intestinalis*'. It splits up starchy foods, forming oxybutyric acid, diacetic acid, butyl alcohol, and acetone. Sugar is also formed during this fermentation. This suggests that the alimentary canal is the source of intoxication in diabetes. The organism flourishes in carbohydrate media, and carbohydrates are contraindicated in diabetes. In diabetes, their theory is that fermentation of the carbohydrates occurs in the alimentary canal to such an extent that the glycogenic power of the liver is seriously hindered, which leads to an improper storage of glucose. Treatment, therefore, should be antibacterial and intestinal antiseptics, with general care for other symptoms that may be present. The cases I reported in my former article were of my own diagnosis, except case three.

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Last fall, I came east for study and, while here, opened an office in Cleveland, Ohio. I have treated several cases in which the results have been good. The diagnosis of diabetes had been made and other treatment given before they came to me. Here are two very interesting ones.

Mr. J. S. D. Aged 60. Wt. 150. Manager of a steel manufacturing plant. Was never much sick, nor often Bowels always active. Operated on for hemorrhoids in 1918. Several years ago, was in bed three months on account of gangrene of the foot and his condition was diagnosed diabetes of severe type. He was put on the proper diet but got little relief and the glycosuria remained constant. I saw him on February 2, 1923. He was very much run down. Temperature and pulse were normal. Stomach and bowels very much distended and he had suffered for a long time on account of this, so that he could not attend to his office more than about one-fourth of his time. Was nervous and slept very little. He had many bad teeth. *B. coli* and staphylococci were in the urine and glycosuria amounted to 4 percent, with a sp. gr. of 1031. I recommended the removal of his teeth and gave him Lactosal (Milliken), a heaping teaspoon in two-thirds glass of water when needed. On February 8, I began the vaccine and gave him a dose a week. By April first, he was putting in all of his time at his work, was

free from the severe gastric trouble, and the urine had only a trace of sugar. His treatment was continued and, on June 17, he was feeling fine. Then I dismissed him for two months. About the middle of July, he had an attack of gastritis on account of indiscretion in diet, and there was a trace of sugar in the urine. I dismissed him with the advice to forget that he had ever had diabetes but to always avoid eating things that disagreed with him. During the last part of his course of treatments, I gave him Pan-Secretin Compound (Harrower). On November first, he reports the results as "wonderful".

Mrs. E. G. Age 52. Married. Had ordinary diseases of childhood and malaria (at 18), otherwise no serious illness. Constipated for years and had bad leucorrhea for years. In 1916, she weighed 180 lbs. but lost weight, so that, by 1920, she weighed only 135. She consulted her physician who told her that she had a bad case of diabetes and put her on a strict diabetic diet; this she had followed until I saw her, March 23, 1923. She was weak and worn, sleeping very little, getting up three or four times every night to void urine. She was very nervous, had a pinched, anxious expression and worried a great deal. Temperature normal. Pulse irregular and not strong. Glycosuria, 6 percent. Sp. gr., 1029. Bacteria in urine and vaginal discharge very numerous, especially *B. coli* and staphylococci. I gave her pancrobin (R. & C.) for her constipation, a few local treatments for the leucorrhea and pruritus, faradic electricity plus suggestion for her nervousness. On March 27, 1923, I gave her Van Cott vaccine which I modified by making the *B. coli* content 2000 millions per cubic centimeter. She received a dose of vaccine once a week. On May 24, she was sugar free and has been so ever since. I saw her last on August 29, and she reported that she was feeling better than she has done for fifteen years and that her bowels were normal. For six weeks, she had an action every day without taking anything, and said she could not remember when it had been so before.

It would be of real interest to hear from other members of the medical profession on this view and treatment. It has given first-class results in all of my cases. It is simple, easy to take and easy to administer, is not dangerous like some other remedies are, does not require the patient to go to the hospital or miss his ordinary duties. There are no diet restrictions other than should be required of any one, and the cost is seldom more for

a full course than it would be for two weeks in a hospital.

AMOS T. FISHER.

2005 Carabel Ave., Lakewood, Ohio
(Cleveland).

[Doctor Fisher's experiences and observations are of great interest in that they show that the bacteria contained in the intestinal tract may influence the life processes of the organism very unfavorably and, almost of necessity, do so when the resistance of the organism is reduced by so serious an impairment as diabetes mellitus. We do not take these observations to prove that diabetes is actually of bacterial origin. That idea, we believe, has been definitely disposed of. However, it is undoubtedly true that bacterial action can promote the course of the diabetes and that antibacterial treatments may, in many cases, influence the course of the disease beneficially to the patient.

We are glad to note Doctor Fisher's further report and hope that he will give us additional information in the course of another year or two.—Ed.]

BOOSTING THE PSYCHOLOGICAL

The cob-webbed and dusty corridors of time are strewn with the wrecks of different systems of medical practice. The healing art verily has travelled the rough and rocky road.

Not very much has come down in a concrete way from the "cave-man period" of our existence which relates to the status of the medical practice in vogue at that distant day; in fact, it is pretty well established that there was relatively small need for medical practitioners amongst these, our primeval ancestors. With their well-developed canine teeth, they lived upon raw flesh, taking as dessert fruits and nuts.

Surgery was most likely an art to which the human race of that remote period still had to look forward several thousand centuries. The cave-man's appendix, therefore, was allowed to remain; a good thing for him, too, for, in the process of evolution, the fittest appendices would naturally survive, which accumulated fitness being handed down from father to son, the evolution of the appendix itself was finally accomplished.

It is quite probable that the appendix originally was quite large and a highly glandular organ, and that its secretion, a lubricating mucus, would run well up towards four or five ounces in the twenty-four hours. The

organ, therefor, acted much in the relation, to the economy, of an oil bag and, having been wisely placed by nature at the very point where such special lubrication would be necessary (where the ashes of food digested in the small bowel would be dumped into the large bowel, or ash-can), to facilitate its further progress and assist bowel-drainage generally, it was a small matter to the cave-man if he was half-brother to the ox or even a second cousin to the three-toed horse, a small matter if he walked with a decided stoop, his long, muscular arms coming easily into contact with mother earth as he travelled. There was always at least the compensating feature to his existence that he did not wake up almost any night in the midst of a horrible nightmare and dreaming that he was going to have his appendix removed, distressed by fears regarding the validity of the procedure, and apprehensive regarding the probable expense likely to be involved in the business of getting it out!

But, if he had small need for medical or surgical attentions to himself or his family, it is altogether likely that he was also minus the benefits to be derived from the ministrations of the various cults devoted to the business of boosting the psychological. I believe that Coué's simplified dogma would have been within his reach mentally; and, no doubt, he would have taken a childish pleasure in going over the formula keeping track of his rhythmical progress by tapping upon the devoted skull of his newly conquered bride with his stone sledge. If the thing became an emergency, however, and he became pressed for time, it is likely, considering his impulsive nature, as we are given to understand it by the anthropologists, that he would have shortened it up into the more compact, "Oh h... I'm well!" and gone ahead with the business in hand, whatever it was.

It would be interesting to know who was the first to notice the matter of the relationship in disease which exists between the mind and the body of a human being. Someone, no doubt, who, beginning to practice the healing art after his primordial fashion, perhaps centuries before even graven characters in stone might have been able to perpetuate the name of the discoverer and the nature of the discovery, found it to be a dependable fact that if, while he was treating a patient, he could by the art of conversation make it apparent to said patient that he, the latter, was improving, that he was in fact getting well fast, he

at once could notice that the patient actually did seem to be better as a result of the mental treatment accorded him. And that also in business of separating the patient from the emolument accruing to the doctor could now be accomplished, by the latter, with less than half the amount of physical exercise ordinarily necessary for the purpose. Whoever it was that made this discovery, of so vast importance to the world, is worthy of a niche in the hall of fame. At the very least, he should be hailed as the "Hippocrates of the cults" and a plaster-of-Paris bust of him should be a prominent decoration in the office of every osteopath, every chiropractor, every christian science practitioner, every naprapath, every naturopath and of every other, the real nub of whose system is, to boost the psychological in the patient, irrespective as to name or of the particular style of prod delivered, or of the method of the manipulation by which, so to speak, the aforesaid boost is "rubbed in".

We would not have to go back many centuries, in the history of the practice of medicine as we have it today, to arrive at the point where the schism occurred between the business of treating a patient mentally with the general objects in mind aforesaid and the method of treating one entirely with the material agencies and means. Suffice it to mention here that there has been, for long enough, a divorcement, in effect, between these two departments of medicine. They should be remarried, the officiating clergyman taking occasion to say that the pinheaded frivolity and questionable conduct, morally, which has characterized the divorced wife throughout the centuries, has been approximated if not actually equalled by the monumental stupidity and the asinine obstinacy of the one-time husband!

Let us look over the field and compare the thing as it stands today; of course, touching only the high points, as any more extended survey would be patently out of place in an essay with the limited scope of the present writing.

Imagine yourself, then, a patient ignorant of the medical practice through a happy inexperience with it; a long and healthy career marred only by one or two trivial accidents. But, now, you are in a position where you must be gotten upon the road to health once more and, finally, you vacillate no more, you cast hesitation to the winds and seek help from a recognized Doctor of Medicine. He looks you over sternly enough, and yet, you

imagine, a bit pathetically. For, some way, you take him to be a man not altogether without a touch of the sentimental in his make-up. You seem to see a flickering light of sympathy gleam for a moment in his face, but the light goes out; for, as you are soon made to realize, he is also a man upon whom it devolves to support upon his shoulders the accumulated weight of the centuries of traditional dignity and ponderous ethical reserve of the medical practice.

About the time, therefore, that you have made bold to encourage yourself with the idea that you would be permitted to be regarded as a human and personal entity by the learned and dignified gentleman, you look again, only to find that his visage has resumed that lofty air of dissociation with you as a human person, and sadly come to the poignant realization that, alas, you can never be more than a case to him! Blighted by such an abysmal plunge into the burning depths of despair, it is a wonder that many a youth doesn't take a header into the lake and *end it all!*

But, instead of that extreme course, we will say that you finally get over the shock, but still have the malady which assailed you in the first place. You decide to try, let us say, a chiropractor. You have no more than crossed his threshold than he literally hugs you to his bosom in the mighty fervency of his welcome. He makes no effort to conceal from you that you have come to the right place, possibly the only place in the world where your case could be properly attended—although he also admits "Not a moment too soon!" He tells you right, out that he can make you sound and well. Oh, of course, it may take some time; several months, possibly, to get your various vertebræ hammered back into place. After his examination, he assures you that you have anywhere from seven to fourteen segments of your backbone dislocated and which will require him to give you "daily adjustments" to get them back into their proper alignment again.

The name "dislocation" is not one with which you are altogether unfamiliar. You, in fact, recall an occasion once upon a time when you had your right knee dislocated. Evidently, though, the backbone was not in the habit of making as much trouble as a man's knee when it got dislocated! Why, you could hardly believe that your backbone could be dislocated! You never even felt it when it went out of place. You recall also that you had the old family doctor come over to the house and reset your knee. After this was accomplished,

he put on straps and bandages and other supports around the knee and warned you not to remove them or to allow them to be removed for a certain time, adding also the warning that he would refuse to assume responsibility for the outcome of the case if the supports he had put on were removed before the expiration of the time set.

There seems, however, to be a discrepancy about the treatment accorded you by the old doctor and that proposed by your new friend. No doubt, the latter, you surmise, is anxious to save you all possible expense and finally you suggest to him that, maybe, instead of giving you these proposed adjustments extending over an unlimited time, he might merely set the dislocations in your spine and then strap them in place, you assuring him that he need not worry; that you will see to it that the straps and supports are maintained in position until the day upon which he might propose to remove them.

Now, of course, when this man gave you this warm welcome a few minutes previously, you did not realize that it was not you whom he was hugging thus ardently to his bosom; it was, as a matter of fact, those dollars which he apprehended you had in your pocket or at least over which you were in a position to exercise control. And, now, he beholds to his consternation those said dollars beginning to adjust and plume their wings preparatory to flight! Oh! Would they? Not if this enthusiastic disciple of Palmer, D. Ch., etc., knew his business! Huh! Do away with all those proposed adjustments at three smackers per adjust! Nay, nay. Say not so! You now observe, and the observation unsettles you not a little, that a look of fine scorn has settled upon his formerly unctuous and friendly map.

"Well!" he finally opines with an air of resignation to the inevitable, "I see that I will have to take time to explain all this to you. You see, there is a healing impulse going down the nerve which is impeded by this subluxation. A daily adjustment is absolutely necessary, owing to the impenetrability of the reflex in the ganglionic circulation. As you can see, it would be entirely useless, in view of the metastatic prolongation amounting in fact to a transubstantiation . . ." You give up and tell him to go ahead and speed up the healing impulse on its unobstructed way down your backbone, to the best of his ability!

Every day you return and are rewarded with an effusive welcome, a warm place on his insectiferous table, a great variety of "clicks" up and down your backbone and a

charge for the clicks of three dollars.

Every day he tells you how much better you look and how evident the fact must be to even the most superficial observer that you are now at last on *the road to health*.

After these séances, or, possibly, I might better call them liaisons, have run on for anywhere from three to six months and you find yourself apparently as far as ever away from the terminus of the road to health, you begin to wonder if maybe this particular road doesn't run around in a circle. You ask the chiropractor about that and he vouchsafes to you that, while he has found your case a more than usually obstinate one, he has no sort of doubt that he will be able to master it absolutely in from three to six months more. By this time, you are so used to being stung that only the other day a lady, begging your pardon, picked a thread off your back, and you, absently, reached into your pocket handing her three dollars!

You still have to go to the chiropractor every day and, though you don't know it, you are just naturally sold to the idea of listening to his mellifluous voice sounding among the rafters, telling you how much better you are, how obstinate your case *was*, whilst he walks up and down your spine on his knees and ties your hind legs into so many difficult and dangerous knots that it will eventually require the services of three men and a plumber to get you sufficiently straightened out again!

But, to go back to the Medicine Doctor again. It will be a bit like going from the Equator to the North Pole. You find the Pole still there, but it is as cold as ever. What is the answer? The Medical Doctor, representing as he does the traditional conservatism of the ethical doctor in his extreme anxiety to avoid the Charybdis of enthusiasm, betokened by any external signs which might be observable to the patient, at once obliterates all signs of hope in his countenance, and in this manner butts his wise and dignified head into the Scylla of unreasonable, even obstinate and jackassical conservatism. And, as a result of it, he never gets a chance to do you the good which he undoubtedly could do you with his comprehensive knowledge of disease processes and his scientific methods of treatment.

The chiropractor, on the other hand, while using your back for a sounding board, has little that is really helpful in his armamentarium more than just plain talky-talk. At that, there are some undoubtedly helpful

things to be derived in the treatment of certain diseases from the particular type of prod which he has learned to deliver to points along the spine and, by all means, these ought to be incorporated into the regular medical practice and due credit given—where known!

He is the possessor of a hot-air balloon—filled with ordinary human hot-air—which would, however, in the course of time, get cold and fall to lower and lower levels, were he not continually engaged in the business, boosting it up into the warm air of cordiality and hope by continual pats and kicks bestowed where they will do the most good.

I merely use the chiropractic as an example. The hot-air balloon idea is as characteristic of any one of these cults which, as you have seen, depend for their existence upon the cultivation of the personal equation of the patient and their infusion into him of an exalted hope, whether such hope has any actual basis in fact or whether it has not!

It is high time that a more congenial and hopeful atmosphere pervaded the office of the regular practitioner of medicine and it is high time that the chiropractor and his ilk acquired a thorough working knowledge of etiology and of pathology.

J. A. DUNGAN.

Greeley, Colo.

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examination:

Junior Medical Officer

Receipt of applications will close December 18. The examination is to fill vacancies in the position of ward surgeon, at U. S. Veterans' Hospital No. 91, Tuskegee, Ala., at an entrance salary of \$2,840 a year, with quarters in the hospital, and vacancies in positions requiring similar qualifications.

Applicants must have graduated from a medical school of recognized standing, or be senior students in such an institution and furnish proof of graduation within six months from the date of making oath to the application; and, in addition, they must have had special training in tuberculosis or in neuropsychiatry for a period of at least three months, either before or after graduation from medical college; or service for a period of not less than three months in a hospital devoted to the treatment of tuberculosis or of

mental disease.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. Civil Service Examiners at the post office or customhouse in any city.

A PHYSIOTHERAPEUTIC MEETING

That physiotherapy is no longer to be regarded as a form of treatment to be indulged in only by the quasimedical or irregular practitioner, was evidenced by the attendance of over five hundred physicians at the school of instruction held at the Logan Square Masonic Temple, Chicago, the week of October 15th. The above number represented thirty states, Washington, D. C., Canada, China and India.

While the meeting was arranged and sponsored by H. G. Fischer & Company, the program was entirely devoid of any commercial aspect, being conducted by one of the physicians present along strictly ethical lines.

The program, which consisted of seven lectures, each day of the entire week, was unique in that not a single lecturer failed to appear as scheduled, notwithstanding that many came several hundreds of miles.

The scope of the lectures dealt with X-ray therapy, deep and superficial; Diathermy, medical and surgical, together with the method of application and technic for different kinds of cases; radiant and actinic light, helio and hydrotherapy, with their usages and indications.

Clinics were arranged demonstrating electrocoagulation, or surgical diathermy. Many phases of light-treatments were discussed, particularly their application and advantages in superficial skin lesions and industrial work. In the latter class of cases, the use of physiotherapy methods is very apparent to every physician who has had opportunity to observe results.

While many of the physicians present have been engaged in this line of work for some years, the great majority have become interested more recently. The extent to which they are interested is attested by the fact that an average of four hundred attended every session, and every speaker was besieged with questions until time was called for the lecture following. The evening sessions, although



Physiotherapeutic Meeting, Chicago, Week of Oct. 15

not announced on the regular program, were also well attended.

The sentiment that emanated from the platform at all times was:

1st. Remember, first of all, that we are physicians and should conduct ourselves as such.

2nd. A careful and painstaking diagnosis is a prerequisite to any form of treatment.

3rd. Physiotherapy is neither new nor startling in its effects, nor a panacea for all human ills; but it is a valuable adjunct in the treatment of many conditions if properly and conscientiously applied.

R. W. Fouts, M. D.

Fischer's Magazine, November, 1923.

[Concluded from page 887]

told you, whether I am to blame in the matter? I do not care to write to the hospital. The husband of the woman has made all sorts of extravagant claims against my method of operating. I fear, the hospital surgeons put all the blame on me, from what I have learned indirectly. I ask as a special favor that, if you use this for your Seminar, which I value as a real help to us younger men in the profession, you omit my name.

Requirement: Both queries involved in the foregoing letter are open to free discussion. Please do not exceed three hundred words.

Chicago, 31 North State St.

[Concluded from page 891]

previous year and spliced it to the part still on board. The laying was then completed with two cables working. The communication between the two continents was permanently established July 29, 1866.

The monster steamship *Great Eastern* was used in laying the cables.

It is worthy of mention, as an important event, that, at the present time, a new Atlantic cable is being laid from Rockaway to Nova Scotia, to the Azore Islands, to Havre—over 4,000 miles. The astonishing fact about it is, that it can transmit 1200 messages at the same time—600 each way!

* * *

W. H. W. What is the meaning of the word "Booklegger"?

Ans. The word was coined by Diana Rice, a New York newspaper woman, who applied the term to the literary bootlegger—the person who sells suppressed books, literary hootch, not-fit-for-the-home "brew".

* * *

A. S. J. What is meant by billingsgate?

Ans. The word is used to mean vile and abusive language. The name arose from the fact that, in old London, near one of the gates of the city was a market called Billingsgate Fishmarket. It was conducted by women known as the Billingsgate fishwives who were notorious far and wide for their offensive and abusive language. In time, the word "billingsgate" came to signify unprintable language.

I once listened to a lecture on London by that brilliant man, the late Professor Goldwin Smith, who was a dry humorist. In naming some of the historical spots in the old city he mentioned Billingsgate Market, "where", said he without cracking a smile, "can be heard the English language in its purity from the lips of woman".

ABSORPTION OF DRUGS THROUGH THE EYE, EAR, TEETH AND ESOPHAGUS

In the September issue of *The Journal of Pharmacology and Experimental Therapeutics*, Prof. David I. Macht reports on a series of important experiments in which he attempted to determine the degree in which drugs are absorbed through the eye, ear, teeth and esophagus. In earlier communications, Doctor Macht published some investigations on the same subject, especially in connection with the question of absorption through the bladder, urethra, ureters, vagina and other genito-urinary organs.

As to the point here under consideration, the experiments described are sufficient to prove, the author declares, that drugs may be absorbed through various out-of-the-way channels. Perhaps the most interesting experiments are those described in connection with the eye. Absorption through the conjunctiva was very strikingly illustrated in two anesthetized animals with such drugs as aconitine and potassium cyanide and in unanesthetized animals with apomorphine and morphine. It was proved conclusively that this absorption could take place even with the nasal ducts occluded; in other words, through the blood vessels and lymphatics of the eye. Absorption through the ear is both of clinical and historical interest. The use of carbolic acid in the ear is very common and, while such a practice may often be very beneficial, the clinician should bear in mind the possibility of excessive absorption through the tympanic membrane. The historical interest of absorption through the ear has been discussed by the author elsewhere in connection with his paper in reference to poison in Shakespeare's Hamlet. Absorption through the gums and dental root canals is common enough but has not been sufficiently emphasized. Finally, absorption experiments on absorption through the esophagus illustrates a difference between the esophageal mucosa and the gastric wall which is not unlike the difference noted between the walls of the urinary bladder and

urethra. The author has already shown that, while drugs are very easily absorbed through the urethral walls, they penetrate very poorly through the bladder wall. The main conclusion drawn from the investigation is the practical one, namely, that great care should be taken by the clinician in determining the limits between a purely local effect and systemic symptoms produced by absorption of drugs applied locally. This delimitation may determine the difference between the therapeutic and the toxic action of many substances.

INCREASING VIRULENCE OF SMALLPOX

For many years, we had enjoyed an almost total immunity against smallpox, which was owing to the general vaccination of the people. It is true that here and there sporadic cases and even small, limited epidemics occurred, but these were promptly controlled through the action of the U. S. Public Health Service in cooperation with the local health authorities.

Partly owing to the antivaccination propaganda of interested agencies, partly through the carelessness on the part of many people who refused to have their children vaccinated, and (perhaps, or at least we believe) partly through the immigration of many people from southern Europe and the Balkan states where vaccination is not practiced as thoroughly as in the central and western states of Europe and in this country, smallpox has recently shown signs of becoming more severe.

From U. S. *Public Health Reports* for June '22 (p. 1406), we copy the following:

"From time to time, mention has been made in *Public Health Reports* of the fact that smallpox is apparently increasing in virulence in this country. Two notable outbreaks of the virulent type of the disease were reported in the United States during 1921 and 1922—the outbreak in Kansas City (Kan. and Mo.) in the late summer of 1921, and that in Denver, which continued from the fall of 1921 through the winter of 1922, the fatal and highly contagious strain of the disease prevailing throughout the summer and breaking out characteristically with the advent of the cooler season. In Denver, during 1922, 660 cases with 226 deaths were reported to the United States Public Health Service by the city health officer. The direct source of the Denver outbreak may have been the same as the unknown source of the Kansas City outbreak.

"The Statistical Bulletin of the Metropolitan Insurance Company for April, 1923, calls attention to the fact that, according to reports received from the health officers of 275 cities in the United States and Canada, the case-fatality rate for smallpox during 1922 was five times the rate for 1921."

This, very naturally, presents a serious problem and one that we cannot afford to neglect. That prophylactic vaccination against smallpox is effective, has been proved definitely and conclusively, many times, by many authorities and in many ways. According to Zinsser, for instance, ("Infection and Resistance," third edition, 1923, p. 597), "the statistical studies of Jurgensen in Sweden show that, in the prevaccinal period, from 1774 to 1801, there were 2,050 deaths of smallpox per 1,000,000 inhabitants.

"In the transitional period of nine years, from 1801 to 1810, there were 680 per million. In 1810, the practice became generally employed, although it was not enforced until 1816, but in the 35 years between 1810 and 1855, there were only 169 deaths.

"These statistical studies, brought together, show that, in the prevaccinal period, there was a death rate of 20 per thousand, whereas, in the vaccinal period the death rate was 0.17 per thousand.

"There is no question about the fact that the simple procedure of systematic vaccination will control smallpox, but it must be remembered that this implies revaccination at least every 7 to 10 years, and that a negative vaccination should be followed in the same individual by a second attempt about two weeks later."

In our opinion, the popular objection to smallpox, where it exists, is due largely to the distress suffered by the vaccinated children during the course of vaccinia, if the vaccination sore has become infected and a large ulcer develops which requires more or less time to heal. It is quite understood that such severe and slow healing ulcerations following vaccination, and also the unsightly vaccination scars that deface so many arms, are due entirely to infection through streptococci and staphylococci, that occurs independently of the actual vaccination and is usually due to injury to the delicate covering of the vaccination pustule. If a way could be found to prevent such contamination, the reactions resulting from prophylactic vaccination done properly and cleanly would not lead to ulceration and would not be followed by the formation of unsightly scars.

In the attempt to elaborate a method assuring freedom from contamination, Wright attempted the intracutaneous injection of 0.1 Cc. of a 50-percent diluted ordinary glycerinated virus. He obtained 70-percent successful takes in 227 Negro soldiers by this method, when only slightly over 8 percent were obtained in the same people by the incision method (Wright, *Jour. A. M. A.*, Vol. 71, 1918, p. 654).

It has also been suggested that vaccination

be done by the hypodermic introduction of the vaccine lymph. Unfortunately, we have no personal experience with this method.

We understand that the U. S. Public Health Service recommends the multiple-puncture method of vaccination in which a small drop of vaccine is placed on the properly cleansed skin and the needle is pushed through the vaccine lymph into but not through the skin. This also is virtually an intradermic or, perhaps, better, an endermic method of vaccination. It is free from the objections of the old method, does not give rise to contamination and to ulcers or large scars, and is highly efficient in producing the desired immunity against smallpox.

HOUSEHOLD DRUGS AND THEIR USES

Alum

1.—It gives glossiness to the hair when applied in solution, and it is one of the ingredients of some hair dyes and hair lotions.

2.—In chronic ulcers resistant to other forms of treatment and where the granulations are exuberant, alum powder, when dusted over the part, brings on healthy granulations and thus helps in curing the ulcers. In chronic umbilical ulcers of infants, it is almost a specific.

3.—Its solution (1 to 2%) is used as eye drops, in conjunctivitis. Points of alum mounted in wooden cases are also used for eye work.

4.—In epistaxis, as an emergency treatment, gauze sprinkled with alum solution (5%), if plugged in the nose, immediately stops the bleeding. This solution may also be used as a nasal spray if the lesion may be higher up. It can also be used as a snuff, mixed with acid tannic in equal parts.

5.—In ulcers of the mouth and tongue, and also in pharyngitis and tonsillitis, alum gargles (grs. 10 to oz. i) gives great relief.

6.—In loose teeth and painful bleeding gums, alum gargles as a daily routine help to fix the teeth and cure the ulcerating gums.

7.—It induces vomiting when given in drachm doses, and it acts as a hemostatic, to stop bleeding from the stomach, if given in small doses of about 5 grs. twice or thrice a day.

8.—In hemoptysis, also, it acts as a good hemostatic in very small doses.

9.—In intestinal hemorrhage and in certain forms of diarrhea and dysentery, it is very

useful when given alone or combined with other appropriate drugs.

10.—For malaria, internally, desiccated alum in 5-grain doses, with some aromatic powder such as pulv. comp. arom. etc., to disguise the taste, acts just like quinine in checking the malarial rigor. It is very efficacious when quinine and all other remedies fail to act in obstinate cases of malaria. The method of taking this powder is to take it with a teaspoonful of water only, as otherwise, with more water, it is likely to induce vomiting. This has been a well-tried remedy and it has given very satisfactory results. The powder is to be given 2 hours before the expected rigor.

11.—In injuries which result in concussion of the brain or spinal cord, or in severe sprains or fractures, the initial thing to be given internally (on this side) is alum grs. 5 with treacle or sugar.

12.—Alum alone or combined with pot. permanganate is used as a urethral injection in chronic gonorrhea, in 1 or 2% solutions.

13.—In leucorrhea, alum plugs or alum douches, are extensively used. Combined with glycerine it can be safely used as ordinary plugs for leucorrhea.

14.—In menorrhagia or in post-partum hemorrhage, sterilized cotton plugs, saturated with alum powder or sterilized alum solution (5%) immediately stops the bleeding and, as an emergency measure, this is extremely useful and handy.

15.—In dental extractions, alum is chiefly used to stop the bleeding, by plugging the cavity with cotton saturated with alum powder or alum solution, or by using it in the form of gargles.

16.—In bleeding piles, alum solution drachm 1 to pint 1 is used as a wash, and alum suppositories are being used for piles and anal fissures.

17.—As alum is excreted by the kidneys, it can safely be used for arresting hemorrhage from the urinary organs.

18.—In croup, a teaspoonful mixed with honey or syrup is an excellent vomit.

19.—Alum acts almost as a specific in cases of obstinate hiccough, when it has resisted all other forms of treatment. In one-drachm doses, it is to be given 2 or 3 times a day. It is likely to induce vomiting, but even then, soon after vomiting, hiccough stops. If the powder is taken with very little water, there is less likelihood of its inducing vomiting.

20.—In frequently repeated doses of 30 grs.,

it relieves lead colic by precipitating soluble salts of lead.

21.—Alum, in the form of Burrows solution (liq. alumini acetat), diluted 4 times, is used as ear drops in acute otitis externa and media.

22.—Alum, in the form of aluminum chloride, is chiefly used for relieving the lightning pains of locomotor ataxia.

23.—Alum, grs. 45, mixed with treacle, is used internally for guineaworm, on this side.

24.—Alum, in 5 gr. doses, thrice a day, with the juice of "Adhatoda Vesica" works wonderfully in certain forms of leucorrhea, especially when the flow is tinged with blood.

25.—Alum powder mixed with talc and zinc oxide is a good remedy for sweating feet.

V. N. MEHTA

Bombay Presidency,
Viramgam, India.

A SAD CASE

I've seen a lot of people with every kind of
ills,

That doctors was a treatin' with powders and
with pills,

Lumbago, asthma, ager and every kind of ache
Of head and ear and stomach, that so much
trouble make.

I've watched the course of cancer with its
certain awful doom,

And seen some folks with t. b., all kivered up
with gloom.

I've watched the whole procession of ills that
come to man

And help somehow to shorten his life's allotted
span.

But I've heard some fellers jokin' with the
end not very far,

With all the lights a dimmin' and the pearly
gates ajar.

And there was once a shut-in that always wore
a smile,

Who seemed in spite of sufferin' to be cheer-
ful all the while.

But the most pathetic figger among the sons
of men,

That's cursed by any ailment described by
tongue or pen,

Is the one without no ailment, that will lay
him on the shelf,

But somehow gits 'the habit of bein' sorry for
himself.

B. F. VAUGHAN.

Arcadia, Okla.

What Others are Doing

CEREBROSPINAL SYPHILIS An Intensive Study of One Single Case

To the general practitioner, the occasional reports, published in journal literature, of "one thousand cases" of one thing and another, afford but limited benefits. Such studies usually give percentage results and contain relatively slender information as to individual peculiarities of cases under consideration. Altogether, it may be questioned whether this kind of report serves any real practical purpose.

We have frequently claimed, and our position has been confirmed by well-known clinicians on more than one occasion, that the intensive study of a single case may be productive of far greater benefit than the mass-study of great numbers of cases. Usually, to the general practitioner, the investigation of one or a few patients afflicted with a certain malady is of much greater benefit, the more so as the general practitioner does not often have numerous cases of a single disease; and, when he does, during epidemics, conditions are such that detailed investigation of the individual patients is all but impossible.

These considerations are dictated by a report that came to our attention, presenting an intensive study of an interesting case of cerebrospinal syphilis, showing unusual symptoms and illustrating the value of spinal drainage following the intravenous administration of arsphenamine. The report of this case was presented by Dr. Henry Pleasants, Jr., of West Chester, Pa., to the Section on Surgery of the Medical Society of the State of Pennsylvania (*Atlantic Med. Jour.*, Aug., 1923, p. 728). We believe that reprints can be obtained of this interesting paper and we hope that the reprints include the discussion which was of equal importance and instructiveness with the paper itself.

The author declares that, while the symptoms of syphilis, the adenopathies, dermatoses, etc., quickly subside following the intravenous administration of arsphenamine, it is yet to be proved whether or not the disease is actually cured by this treatment; that is to say, whether or not the spirochetes are all killed.

The Wassermann reaction has been an invaluable aid in the diagnosis and treatment of syphilis. But, again, the persistence of a positive Wassermann reaction following intensive treatment has brought up the question as to whether or not this reaction is absolutely dependable. Some cases where the Wassermann has remained positive in spite of a prolonged course of intensive treatment have been termed "Wassermann-fast," leaving however, considerable doubt in the minds of clinicians as to the efficacy of the treatment.

Pleasants cites Solomon (*Arch. New. & Psych.*, Feb., 1922) who concludes, from a résumé of the results of many observers that there is no uniformity of opinions concerning the value of treatment in the various types of neurosyphilis. There is no definite evidence to show which methods are the most satisfactory and, indeed, the majority of the reports concerning treatment were unsatisfactory. Pleasants correctly believes that, in the study of neurosyphilis, the most valuable information is obtained from a very intensive study of a comparatively few cases rather than a superficial study of a large number. In support of his opinion, he cites a single case.

A machinist, white, married, thirty years old, complains of severe occipital and general headache. The previous medical history is largely negative excepting for measles in childhood and tonsillitis every fall. The patient has been under weight all his life and, for many years, he had a palmar eczema resisting all forms of treatment.

Having married in May, 1919, he acquired a luetic infection in November of that year, with a primary sore and secondary rash. The family history is not conclusive, although there is suspicion of syphilis having existed in the father. The patient's luetic infection can not be traced to any known exposure.

Secondary eruption, December, 1919, with definite mucous patches, sore throat and falling hair. Examined at a skin dispensary and then treated at a genitourinary clinic. Wassermann being 4 plus, a series of ten intravenous injections of neoarsphenamine was given, leading to a Wassermann "delayed negative."

A second series of eight injections of neoarsphenamine caused the Wassermann to become negative. After a third series of eight injections, the Wassermann was still negative and the same result was recorded after a fourth series of eight injections.

During this course of treatment, the patient began to have headaches which were relieved temporarily by the injections, but, eventually, came on with greatest violence during the night. The injections were followed by vomiting and the patient sometimes became irrational. In spite of about sixty doses of the arsenical, the headache increased steadily in severity. When Doctor Pleasants examined him first, he found tachycardia, with a pulse of 142; marked indicanuria; much bile in the urine; exaggerated reflexes. The biliary stasis was relieved by drainage after the method of Lyon. Culture of the bile showed neither streptococci nor typhoid group organisms. After the biliary drainage, the indican disappeared and the headaches improved. There was no ataxia and the gait was normal, also sensation. During severe attacks of headache, articulation was greatly interfered with.

The blood showed a red blood cell count of 4,240,000; white blood cell count, 7,990; hemoglobin, 80%; polynuclears, 75; lymphocytes, 21; mononuclears, 2; eosinophiles, 1; transitionals, 1. The blood Wassermann was negative. The spinal fluid, of which between 20 and 30 Cc. were withdrawn under considerable pressure, was clear, without flocculi or sediment. The total cell count was 200 per Cc. Polynuclears, 20%; lymphocytes, 80%; Wassermann, 4 plus; globulins, 4 plus; sugar, negative; tubercle bacilli, negative.

The withdrawal of spinal fluid was followed by great improvement. X-ray examination of the teeth disclosed some troubles which were remedied, with temporary improvement. The same is true of refraction of the eye. After a few weeks, the headaches returned with increased severity.

After consultation, weekly spinal drainage was done for one month. The total cell count then fell to 65% but without improvement. A course of intramuscular injections of 1% biniodide of mercury in 1 Cc. doses, every three days, did not bring relief. The spinal Wassermann remained 4 plus.

Intravenous injections of 2-Gram doses of sodium iodide in normal saline solution preceding the spinal puncture were unsuccessful.

At the suggestion of Dr. Edward Kerr, intravenous injection of neoarsphenamine

combined with spinal puncture was undertaken. 0.9 Grams of neoarsphenamine was administered and, fifteen minutes later, from 40 to 50 Cc. of spinal fluid was withdrawn under tension. The moderate reaction, of chill, headache and nausea, disappeared within a few hours and was followed by marked improvement. The treatment was repeated one week later, with comparatively slight reaction. The total cell count fell to 15 per Cc. and a further treatment brought this down to 10. The spinal Wassermann now was 2 plus. Globulin negative.

By this time, the patient had clinically recovered; the headaches had disappeared and he was able to resume his work. After four weeks, another series of three treatments was given, in one of them no spinal fluid was obtained. This was one year ago and, so far, the symptoms have not returned.

Doctor Pleasants calls attention to the importance of routine examination of the spinal fluid in syphilitics, even after an intensive course of treatment and even though the blood Wassermann may be negative.

He insists upon the value of intravenous treatment with neoarsphenamine followed by spinal drainage.

He points out how rapidly the central nervous system may become involved following infection.

The case history shows the possibility for a patient with active cerebrospinal syphilis to become a parent of an apparently healthy child and avoid conjugal infection.

There exists the possibility, although remote, that this patient had latent hereditary syphilis. This is suggested by the vague history of the father and by the fact that the patient himself had suffered from palmar eczema.

The points made by Doctor Pleasants in his paper were brought out and emphasized in the very interesting discussion in which, however, the fear was expressed that cerebrospinal syphilis was not amenable to treatment, no matter of what kind. Attention was called to the necessity of early intensive treatment immediately on the appearance of the primary sore and also to the associations of cutaneous manifestations and cerebrospinal syphilis. The paper is well worth careful study and may serve as an example for us as to how to study our difficult cases.

CARDIAC FAILURE

In a lecture on cardiac failure, delivered to

the North Wales Branch of the British Medical Association (*B. M. J.*, Nov. 11, 1922, p. 899), Dr. John Hay characterizes the present position of physicians in relation to cardiac failure as unsatisfactory, first, because there is a disinclination to face the necessity present in each case of determining the exact cause of the failure and adopting the treatment to meet the special need of that patient; and, secondly, because there is not a clear conception as to the real value and therapeutic action of the various drugs used. He insists that some of the drugs used have a wholly fictitious reputation and continue to be administered with a simple, blind faith, harbored by both doctor and patient.

In order to solve the problem, it is necessary to study heart failure and to inquire just what influence is exerted upon it by various methods of treatment. As has been pointed out by other writers, the commonly-accepted meaning attaching to the term heart failure is not quite correct. It really means an inability on the part of the heart to accomplish its work satisfactorily. In other words, failure begins when the heart ceases to respond adequately to the normal calls upon its reserve power, when it fails to rise to the occasion.

In incipient heart failure, be it understood, the symptoms may be entirely subjective and it may be impossible to discover any objective irregularities or anomalies of the heart beat. Cardiac pain may indicate cardiac failure and often is characterized as "indigestion." This is felt, more usually, after breakfast, and causes the impression of a lump behind the breast bone; it is associated sometimes with flatulence. This, like other subjective sensations, is aggravated by effort and eased by rest.

Another subjective symptom may be an aching pain at the angle of the left scapula or pain in the left elbow or wrist or arm. These pains should not be passed off as being due to neuritis or rheumatism; their cardiac origin is suggested by their relationship to effort. Indeed, the patient may tell that, if effort is persisted in, definite precordial or substernal pain begins to manifest itself, accompanied by dyspnea. One very striking symptom is a sensation of weight in the arm, more often the left, associated with an inability to carry parcels. Such symptoms are almost invariably intensified by increased exertion and yield to rest. This fact is an important diagnostic guide.

Shortness of breath may be the first indication of a failing heart. It may or may not be

accompanied by precordial discomfort or actual pain. Alteration of pulse is an objective symptom of decided significance.

After discussing the various types of cardiac failure, of which he differentiates six, Doctor Hay enumerates the various drugs that are commonly used in this condition. He comes to the conclusion that strychnine and alcohol probably have no direct stimulating effect on the heart and that camphor falls into the same category.

The caffeine group, including theobromine and its compounds, has undoubtedly an influence on the heart and circulation which may be of service under certain conditions, especially when the failure is associated with edema.

It is just as well to face the fact, Doctor Hay says, that we have very few drugs which can be relied upon to act as specific cardiac stimulants, and even those with an assured position act satisfactorily only in the absence of severe toxemia.

He says: "the less we rely on 'cardiac tonics' the more attention shall we give to those features in the management of the patient by which the heart can be saved from strain; the more shall we attempt to delay cardiac failure in the acute infections by dealing directly with the toxemia; and the more shall we make every effort to maintain the quality of the blood at a high level in chronic valvular disease and thus supply the heart with an adequate blood stream.

"In treating cardiac failure, I would urge that the discussion of the particular cardiac tonic to be administered should come last and not first, and that certain other lines of attack should receive full consideration. It is of primary importance to diminish the number of beats. Physical rest and freedom from excitement and worry will do this. At the same time, there are many patients suffering from valvular disease and other forms of cardiac disability whose reserve power can be immensely improved by exercise, and to increase the reserve power is to diminish the liability to cardiac failure.

"Hearts, like individuals, soon 'get out of order', and the habit of rigidly restricting the amount of effort and exercise, for no better reason than the existence of a murmur, is to induce with certainty a condition of diminished reserve power. The symptoms of distress in such patients are not the result of the disease but of the treatment. To make matters worse, many of these unfortunates become introspective and apprehensive about them-

selves; their outlook on life is altered, and they deny themselves all reasonable exercise for fear of straining their hearts or of inviting a sudden death.

"Serious attempts must be made to give these neuropaths more confidence in their powers. For such, dancing is an excellent form of exercise and is being largely employed in America. Most people enjoy it; the periods of actual dancing are short, the exercise is intermittent, and the degree of physical effort is small. It is difficult to overestimate the value of the delight in the dancing itself as a form of mental therapy.

"Exercise accompanied by enjoyment is of far more value than specified active or passive movements according to time table, though it is obvious that the latter can be more carefully graded. There are many occasions in the more severe degrees of cardiac failure where treatment of this kind is valuable, but as a general rule exercise should be a joyful performance if the maximum benefit is to be obtained. The inclination of the patients must be considered, and the opportunities presenting themselves will in any particular case enable a pleasant and appropriate scheme of recreation to be drawn up.

"Anything interfering with the freedom of the respiratory movements must be remedied. Especially is this so in cases of pneumonia, when so much depends on a free excursion of the diaphragm; abdominal distension must be dealt with drastically. In non-febrile cases, a hydrothorax must be looked for and paracentesis carried out if required.

"Then sleep is essential, and I think it difficult to overestimate the great value of opium in the severer degrees of cardiac distress, and of the hypnotics, such as the bromides and chloral and chloralamid, in the milder manifestations. We must not forget that the 'foster-nurse of Nature is repose'.

"The vigor of the myocardium can be maintained only when the blood supply through the coronaries is ample and of good quality. Hence, the optimum blood pressure must be maintained even if it be relatively high.

"The soundest treatment of all for many patients is the prolonged administration of hematinics. There is no better cardiac tonic to those suffering from valvular disease of the heart or chronic renal disease with arteriosclerosis than a liberal supply of first-class blood to the failing myocardium."

BARBITAL ABUSE

We are informed, by the *American Regis-*

tered Pharmacist's Journal, that the California State legislature probably will enact a law to make it necessary for a customer to have a prescription from a licensed physician before barbital (veronal) may be obtained.

Many institutions and societies as well as hospitals and physicians have appealed to the State of Pharmacy for a regulation of the sale of this substance due to the unrestrained use of it. Many deaths are reported from the use of too much barbital.

While the open sale of barbital is being regulated, might the restrictions not be extended to such popular, abused drugs as aspirin? We use the trade name for acetylsalicylic acid designedly, for it is under that designation that this drug is known. It must be considered that it has become known and popular through the agency of physicians themselves. However, since acetylsalicylic acid has been produced in this country, a deliberate advertising campaign for "aspirin" has been undertaken and this drug is now being advertised to the public as generally and with as many claims as was antikamnia, many years ago. The firm that floods the market with "aspirin" in convenient little containers seemingly does not care anything about the possible harm that may follow its indiscriminate use; nor does it seem to pay heed to the fact that analgesic drugs are invariably and inevitably abused if employed without restrictions.

If restrictions are called for at all, they should be inclusive and, if the dear public has to be kept in leading strings, these may as well be made fully effective.

THE INHALATION OF VEGETABLE DUST, MILL FEVER

Various forms of hay fever result in large part, at least, from the inhalation of the pollen of plants. Injurious effects are similarly produced by the inhalation of vegetable dust in factories. The vegetable fibers used in the manufacture of clothing are cotton, jute, flax and hemp. In the preparation of all these fibers and in the mechanical processes necessary to their conversion into cloth more or less dust is produced. Formerly a large percentage of the workers making up these vegetable fibers constantly inhaled the finely divided dust while at work in the factory. Many of the beginners suffered from a low fever known as "mill fever." Some of them acquired asthma in much the same way that this disease is caused by the inhalation of pollen. —*Hygeia*.

"COMMON COLDS" AND OTHER RESPIRATORY DISEASES

The diagnosis, "just a cold", is about as foolish a one as can well be made. "Colds" are too often stepping stones to serious ailments and to permanent impairment of health. Potential seriousness of "colds", as also, of course, of influenza and similar conditions, is fully recognized by medical men, but it has hardly come to the general consciousness in what degree these conditions may be responsible for suffering, loss of time, disability and even death. There are many, too many individuals who suffer from some acute respiratory condition at least once a year, losing from a day to a week or more as a result, to say nothing of the miserable feeling which such condition entails. Some of these attacks develop into chronic inflammations, middle ear disease leading to deafness, mastoid disease, occasionally meningitis, and at times a latent pulmonary tuberculosis is lighted up as a result of one of these acute disorders.

We are informed that the U. S. Public Health Service has undertaken a detailed study of common colds and other minor respiratory diseases and influenza in an effort to gather morbidity data over a sufficient period of time and over a large enough geographical area to render these studies of value in attempting to prevent these affections. Comparatively little is definitely known as to the real causes, distribution, manner of spread, and epidemiology of these so-called respiratory ailments, nor of inter-epidemic influenza, because these diseases do not appear in ordinary morbidity reports. These studies are the first of their kind to be taken up on such a scale.

To collect these respiratory histories, both negative and positive, certain groups of colleges have been selected where active cooperation has been obtained by circularizing and enlisting the support of the students in reporting to the Public Health Service twice a month their respiratory experiences—whether or not they have had colds, bronchitis, tonsillitis, or influenza, for the two weeks' period covered by the report. Preliminary data are also collected relative to the incidence of influenza among those reporting, during the 1918 epidemic, whether or not they have been subject to chronic nose and throat trouble, the nature of underwear worn, ventilation of quarters during sleeping hours, and the like.

This work will be actively undertaken at Harvard University, Boston; Johns Hopkins Medical School, in Baltimore; Georgetown and

Howard Universities, of Washington; Tulane University, of New Orleans; Ohio State University of Columbus; University of Chicago at Chicago; and the University of California at Berkeley. By this selection of colleges, groups of individuals living in all sections of the United States will be enlisted and comparative studies made relative to the true occurrence of common colds and, among other things, influenza, at the places mentioned. It is hoped to determine the relation that the common cold bears to influenza.

It is anticipated that these studies will extend over a period of two or three years, and that the results will give a more definite idea of the epidemiology of respiratory disorders.

HYPERTENSION IN WOMEN

Woman is evidently subject to high blood pressure, for the same reasons as man is. In addition to that, it has been asked whether there are reasons that determine the symptom complex of high blood pressure in woman more frequently than in man. Continued systematic investigations have actually shown this to be the case, as is observed by Dr. David Riesman (*Le Monde Médical*). Riesman declares that, in woman, one may observe often a form of hypertension that may be called "essential", since it is independent of any renal or vascular lesion. Its causes are multiple and are associated largely with the genital apparatus; other cases may stand in relation to constipation which is common in women, and to a tendency to worry, which would determine the psychic cause. According to Riesman's findings, women afflicted with this form of hypertension are frequently between fifty and sixty years old and have passed through several confinements.

Ordinarily, this "essential" hypertension is tolerated remarkably well. The kidneys and the arteries are found to be sound. The reaction of the heart, leading to the hypertension, has given rise to a hypertrophy, especially of the left ventricle. The hypertension causes discomfort only occasionally. Still, it is important to inaugurate at least a gentle form of treatment. This treatment will be largely hygienic, consisting in the regulation downward of the quantity of food, in the taking of graded exercise and in some form of hydrotherapy. As for medicinal agents, Riesman has limited himself to two remedies, namely, corpus luteum, especially if the trouble is connected with the menopause, and iodine, which is administered in small doses.

Among the Books

SPRIGGS: "DUFF HOUSE PAPERS"

Duff House Papers. Edited by Edmund I. Spriggs, M. D. Volume One. Illustrated. London: Oxford Medical Publications. Price \$9.50.

Duff House in Banff, Scotland, is a splendid building in the Renaissance style of architecture erected between 1739 and 1745 and belonging to the Duke of Fife. Some years ago, the late Duke of Fife presented Duff House to the citizens of Banff and Macduff and, in 1913, the building was remodeled and adapted to the needs and conveniences of a hospital which is devoted to the treatment of diseases of nutrition.

Under present circumstances, when diabetes mellitus and insulin are in every physician's mind, the most attractive features of this volume of "Duff House Papers" are, easily, "The Patient's Manual of Diabetes", in twenty chapters which, printed as a separate volume, is given to suitable patients at Duff House; then, "Some Observations on the Blood-Sugar in Diabetes"; "The Fasting Treatment of Diabetes"; and "A Case of Pancreatic Insufficiency". There are other interesting communications contained in this volume, among which we might quote a paper on "Duodenal Diverticula", and one on "A Case of Spastic Constipation".

The volume is beautifully printed and generously illustrated. It bears witness to the excellent work that is done in Duff House.

BOAS: "HABITUAL CONSTIPATION"

Habitual Constipation, its causes, consequences, prevention, and rational treatment. Set forth in non-technical language. By Ismar Boas, M. D. Translated by Thomas L. Stedman, M. D. New York: Funk & Wagnalls Company, 1923. Price \$2.00.

This book is written in a popular style rather than as a strictly scientific treatise, and that is well. It is equally of service to physicians and to the laity. The Reviewer has read it with distinct benefit and many facts about constipation have been recalled to his mind that, while not exactly forgotten, had disappeared from his consciousness. We can cordially recommend the book, literally, to everybody concerned.

MEDICAL CLINICS OF NORTH AMERICA

The Medical Clinics of North America (Issued Serially, one number every other month). Volume 7, Number 2. September, 1923. By Chicago Clinicians. Philadelphia: W. B. Saunders Company. Price, per clinic year (July, 1923, to May, 1924), Paper \$12.00; Cloth \$16.00.

The Chicago Number of "The Medical Clinics of North America" is full of good things. That is nothing unusual in this splendid publication. However, we are specially gratified because it shows what a fine medical center Chicago is.

Isaac Abt discusses the Nature and Treatment of Collapse in Infancy and Childhood.

Charles L. Mix has an article on Duodenal Ulcer Combined With Cholecystitis.

Charles Spencer Williamson deals with: Acute Lymphatic Leukemia (Small-Celled Type); Purpura Hemorrhagica; Hodgkin's Disease (Abdominal Type).

Frederick Tice together with Vincent H. O'Connor has an article on Disease of the Upper Urinary Tract Without Referable Symptoms.

Walter W. Hamburger tells us something about Acute Cardiac Psychoses; Clifford G. Grulee about The Care and Feeding of Premature Infants.

Peter Bassoe offers a discussion of Epilepsy with Report of 200 Cases Seen in Private Practice.

There are many other articles in this number, and all are good.

WORKMEN'S COMPENSATION ACTS

Workmen's Compensation Acts in the United States. The Medical Aspect. Research Report Number 61. National Industrial Conference Board. New York.

Physicians who are employed by patients who suffered accidents or injuries in the course of their work should be interested in this publication, equally whether they are employed as family physicians, by the patients themselves, or as regular attendants by the employers. The text of the report can not be abstracted. Still, we do not wish to fail to announce its appearance.

FALTA-MEYERS: "ENDOCRINE DISEASES"

Endocrine Diseases Including Their Diagnosis and Treatment. By Wilhelm Falta. Translated and Edited by Milton K. Meyers, M. D. Third Edition. Philadelphia: P. Blakiston's Son & Co. 1923. Price \$8.50.

This monograph, in which the clinical aspects of the diseases of the ductless glands are discussed, is well known to the medical profession. The present edition is by far more complete than the preceding ones, because of the diligent study of numerous contributions to literature that had to be worked up. The study of the endocrine glands, their influence upon the physiological processes, both normal and abnormal, is intensely interesting. We are convinced that the future will add materially to what we already know concerning the endocrine problems, and that is by no means small. While our knowledge can not be said to be perfect or absolute in all points, it is quite definite in many respects. At any rate, these conclusions are suggested strongly by our clinical results.

There is one thing against which the Reviewer should wish to warn physicians and that is, the uncritical administration of endocrine substances. In every case, indications should be determined and the remedies should be administered with care, their effects being watched diligently. In this way, our knowledge in this chapter of medical practice can be enlarged and completed.

STARLING: "ALCOHOL"

The Action of Alcohol on Man. By Ernest H. Starling, M. D. With Essays by others. London and New York: Longmans, Green and Co. 1923. Price \$4.50.

Professor Starling's discussions concerning the action of alcohol on man can be read with equal benefit by those who oppose prohibition and by its promoters. Professor Starling's position in the scientific world is guarantee of his sincerity of purpose, the honesty of his work and the unbiased attitude of his mind. For the same reasons, his conclusions must be accepted as authoritative, unbiased and correct.

Professor Starling finds that alcohol is, without a doubt, a food; not one, however, that promotes the ability to do heavy work. Indeed, where it has been possible to make a comparison between gangs, the men doing heavy work when allowed the free use of alcoholic drinks during the work and the others debarred from such drinks, it has always been

found that the performance of the abstinent gang was superior and attended with less fatigue. Nevertheless, under certain conditions, for instance, in diabetes, the food value of alcohol is of distinct benefit, since here the patient can oxidize it while he is unable to oxidize sugar. Further, Starling considers alcohol to be useful as a food in the weakness of old age and in some other cases of disease because of its ease of absorption and the fact that it does not require digestion.

"There is nothing inherently good about a stimulant and nothing inherently bad about a narcotic. Each may have its value in the proper dose and under appropriate conditions, and our study of the effects of alcohol enables us to judge what are the proper conditions for its employment. In the first place, we can say that it is unsuitable for the highest mental efforts, or during the performance of prolonged muscular feats. But in many individuals the control by the highest centers is developed to an excessive degree, so that it may actually interfere with the carrying out of complicated acts acquired by constant practice. To such individuals, it is relaxation rather than increase of tension or of nervous excitement which is required, if they are to attain their optimum performance, and a smaller dose of alcohol may result in an improvement of efficiency."

Altogether, Professor Starling's investigations have convinced him that, in a civilized society, such as ours, the abolition of all alcoholic beverages from our midst, even if carried out by universal consent, would be a mistake and contrary to the permanent interest of the race. If it were enforced by legislation against the wishes and convictions of a large proportion of the members of the community, he believes it would be little short of calamity. While it would not result, in the long run, in the improvement of national health and efficiency, it would diminish that respect for the law and that identification of self with the law which are essential for the stability and welfare of a democracy.

THE ROCKEFELLER FOUNDATION

There are two publications from The Rockefeller Foundation before us. The one is entitled "International Health Board", Ninth Annual Report, January 1, 1922, to December 31, 1922. This report deals, after the historical introduction, with the campaigns against yellow fever, malaria, hookworm, with the extension of county health work, the de-

velopment of public health laboratories, and various other phases of health work that concern medical practitioners intimately.

The second publication before us contains a review for 1922 and a summary for the first decade of the work of the Foundation. It was prepared by George E. Vincent, President of the Foundation.

NOGUCHI: "LABORATORY DIAGNOSIS OF SYPHILIS"

Laboratory Diagnosis of Syphilis. A Manual for Students and Physicians. By Hideyo Noguchi, M. D. Illustrated. New York: Paul B. Hoeber, Inc. 1923. Price \$7.50.

This is a very useful guide for the carrying out of various laboratory methods that have been proposed for the recognition of syphilis. Especially the study of the serum reactions and the proper evaluation of laboratory results present difficulties to physicians. A careful study of Noguchi's discussions will help toward a better understanding of the problems involved.

NATIONAL RESEARCH COUNCIL

The *Bulletin of the National Research Council* for July, 1923, contains an article on the "Causes of Geographical Variations in the Influenza Epidemic of 1918 in the Cities of the United States.

A copy of the Reprint and Circular Series of the National Research Council contains a Statistical Study of Tuberculosis Mortality in Colorado for the Thirteen Years 1908 to 1920, which originally appeared in *The American Review of Tuberculosis* for August, 1923.

The "Bulletin" is published at irregular intervals. The subscription price, postpaid, is \$5.00 per volume of approximately 500 pages. Numbers of the "Bulletin" are sold separately at prices based upon the cost of manufacture. Address, Publication Office, National Research Council, 1701 Massachusetts Avenue, Washington, D. C.

STONE: "BLOOD CHEMISTRY"

Blood Chemistry Colorimetric Methods for the General Practitioner. With Clinical Comments and Dietary Suggestions. By Willard J. Stone, M. D. New York: Paul B. Hoeber. 1923. Price \$2.25.

Information that can be procured only through laboratory tests and for the continued control of the treatment, with a practical knowledge of the most important laboratory methods, is essential for the medical practi-

tioner. In the opinion of the author, it is the time required for carrying out these laboratory tests rather than the cost of apparatus or reagents that is an important factor. However, he believes that a well-equipped small laboratory can do quite as satisfactory work as the large-scale performance of tests in public laboratories; and there is an added advantage that the physician may modify and improve his own methods and check his own work.

At any rate, a guide for carrying out important laboratory methods for the examination of blood chemistry undoubtedly is of great service. Recent developments in the treatment of diabetes (to take out only one instance) have shown the essential nature of such studies so clearly that physicians are becoming more inclined to devote time and attention to these somewhat difficult subjects.

ABDERHALDEN: "ARBEITS- METHODEN"

Handbuch der biologischen Arbeitsmethoden. Unter Mitarbeit von 500 bedeutenden Fachmännern herausgeben von Geh. Med.-Rat Prof. Dr. Emil Abderhalden. Berlin und Wien. Urban & Schwarzenburg. 1923. Abt. IV. Blutuntersuchungen.

This latest portion of Abderhalden's important work contains seven articles on the examination of blood as follows:

H. J. Hamburger: Determination of the Resistance of Red Blood Corpuscles. Emil Reiss: Refractometric Examination of the Blood. H. Kleinmann: Colorimetry. Nephelometry in the Biochemical Laboratory. R. Fåhræus: Suspension Stability of the Blood. R. Degkwitz: Methods for the Examination of Blood Platelets. H. Schlecht: Microscopy of the Blood. E. Frank and S. Seeliger: Methods for Examining the Hematopoietic organs.

POTTINGER: "SYMPTOMS OF VISCERAL DISEASE"

Symptoms of Visceral Disease. A Study of the Vegetative Nervous System in Its Relationship to Clinical Medicine. By Francis Marion Pottinger, A. M., M. D. Second Edition. Illustrated. St. Louis: C. V. Mosby Company. 1922. Price \$5.50.

There is no better way of recalling to our minds the purpose in the scope of this remarkable book than to reproduce a portion of the preface to the first edition: "An attempt is made", the author said there, "to interpret so far as may be possible in terms of visceral

neurology, symptoms which are found in the everyday clinical observation of visceral disease. It is a study of visceral disease not from the standpoint of the *disease process*, important as that is, but from the no less important standpoint of the *patient* who has the disease. It is an attempt to show how pathologic changes in one organ affect other organs and the organism as a whole, through the medium of the visceral nerves. In contradistinction to the usual treatment of disease processes in their pathologic anatomic relationships, this is a study in pathologic physiology. It is largely a discussion of 'viscero-genic' reflexes; and, as such, causes us to examine somewhat carefully into the problems connected with the vegetative nervous system. It aims to show the importance of careful clinical observation and analysis."

The immense importance of the sympathetic nervous system is fully brought to our consciousness. New viewpoints are opened up and a devoted study of this book can not fail to increase greatly our ability to be of service to our patients.

HAWK: "PHYSIOLOGICAL CHEMISTRY"

Practical Physiological Chemistry. A Book Designed for Use in Courses in Practical Physiological Chemistry in Schools of Medicine and of a Science. By Philip B. Hawk, M. S., Ph. D. Eighth Edition, Revised. Philadelphia: P. Blakiston's Son & Co. 1923. Price \$5.00.

We congratulate the author on the fact that new editions of his excellent book become necessary at such frequent intervals. We are informed that, in the present eighth edition, the bulk of the new matter has been introduced under the section on blood analysis, acidosis, quantitative urine examination, vitamins, and kidney function.

It is not only as a guide for the doing of laboratory tests that Doctor Hawk's book is of service. We are, ourselves, using it as a reference book which affords light on a great many questions that present themselves to us.

FARR: "LOCAL ANESTHESIA"

Practical Local Anesthesia and Its Surgical Technic. By Robert Emmett Farr, M. D. Illustrated. Philadelphia: Lea & Febiger. 1923. Price \$8.00.

The author deplores that the conservatism of medical practitioners has prevented a more general and prompt acceptance of local anesthesia despite its numerous and undoubted

advantages over general anesthesia and notwithstanding the fact that the dangers inherent in the employment of local anesthetics are less than those connected with general anesthesia. His book, which, incidentally, is dedicated "to that unfortunate individual, the patient who, fate has decreed, must undergo surgical treatment", is a large and detailed textbook and impresses us as being very complete. Not only surgeons but also general practitioners who do surgery should study it.

THE LANCET CENTENARY NUMBER

The Centenary Number of the *Lancet* (London) bears the date of October 6, 1923, and commemorates the one hundredth anniversary of this well-known medical periodical. In addition to the customary addresses, articles, notes, reviews, etc., it contains a special supplement and a brief historical sketch dealing with the one hundred years of its activities.

The number is well worth owning for its own sake and can be bought for the price of one shilling.

"THE ENDOCRINE SURVEY"

The Endocrine Survey is published by The Survey Publishing Co., Glendale, Calif., and is edited by Dr. Henry R. Harrower. It appears as a continuation of *The International Digest of Organotherapy* and *The Organotherapeutic Review*. This little journal is published monthly at a subscription price of \$1.00 a year. The contents of Volume 1, No. 2, November, 1923, which is before us, deal more particularly with diabetes, Insulin and other pancreatic preparations. The hormone treatment of diabetes is just now in everybody's mind and much information of great interest can be found in this issue of *The Endocrine Survey*. Emanating as it does from Glendale, California, the little journal will be sure to be of value and of interest. We wish it success in its career.

HARROWER: "PRACTICAL ORGANOTHERAPY"

Practical Organotherapy. The Internal Secretions in General Practice. By Henry R. Harrower, M. D. Third Edition. Glendale, Calif.: The Harrower Laboratory. 1922.

The third edition of Harrower's "Practical Organotherapy" contains almost twice as many pages of text as did its predecessor, a sign of the indefatigable efforts that the author de-

votes to the particular phase of medical endeavor in which he is specially interested. The text is collated from material obtained from the results of experiences and observations in the laboratory, in large clinics under the supervision of trained students, and in general and special practice by practitioners of medicine and its specialties. Naturally, the information contained in current literature also has contributed its share and, finally, the author maintains a large correspondence with numerous physicians who supply much of his material.

It would be difficult to find a more complete set of sources from which to draw conclusions and arguments out of which to cull serviceable hints and in which to find useful instruction.

It might be said that this little book appears in the nature of a "house organ" and merely designed to popularize and to sell Harrower's polyglandular products. That may be true, providing the word "merely" be omitted. Supposing the author does call attention to his own products. What of it, as long as he is quite certain that he offers the best that can be made and providing that his claims in that direction are confirmed by others—as is actually the case. There is nothing wrong in calling attention to your products if they are made honestly and suitably and with due regard to all requirements. It can not be denied that "Practical Organotherapy" is a very useful reference book for rapid orientation. When it comes to detailed study of organotherapeutic problems, it will have to be supplemented by some of the larger monographs. Its outstanding character is, the confidence and enthusiasm displayed in the possibilities of endocrine medication and also the shrewd recognition of the fact that the glands with internal secretion cooperate in great part and that a logical outcome of this fact is the therapeutic employment of combinations of glandular substances.

"THE DOCTOR'S THERE"

Here is an attractive little pamphlet published as a note of appreciation by G. W. Carnrick Company, New York. The pamphlet

received its title from the first communication, a poem, by Dr. W. A. MacKenzie. There is a lay estimate of the doctor reproduced from the *Boston Transcript*. There are poems and small articles, all dealing with the doctor and culled from literature. The last is a portion of Ian Maclaren's wonderful tribute to "A Doctor of the Old School".

We have to thank the G. W. Carnrick Company for this beautiful tribute which is appreciated.

MILLER: "RUBBER"

Rubber and Gutta Percha Injections. Subcutaneous Injections of Rubber and Gutta Percha for Raising the Depressed Nasal Bridge and Altering External Contours. By Charles Conrad Miller, M. D. Chicago: Oak Printing & Publishing Co. 1923. Price \$1.75.

The unsatisfactory and sometimes serious results of paraffin injections for the purpose of correcting cosmetic imperfections are well in our minds. We believe that the method has almost been given up. Doctor Miller has found that specially prepared gutta percha can be injected subcutaneously without harm and with splendid cosmetic results. This little book is interesting.

[Concluded from page 883.]

and difficult position under its provisions. I consider that the action of Congress in this respect is reprehensible. All this, however, does not alter the fact that the act is in force and that the only thing we can do honestly is, to abide by it.

The matter becomes the more serious and fraught with deplorable consequences because of the fact that the available "liquor" is so atrociously bad and so fatally certain to work harm. It has been said that there is not a single bottle of actually good whisky to be had in this country. That may be overstating the facts; but, certainly, we read enough concerning the evil consequences and effects of hooch to cause us to refrain from its use and to avoid writing prescriptions for the sick, even where under normal circumstances we would prescribe it because we consider it the best remedy for the emergency.



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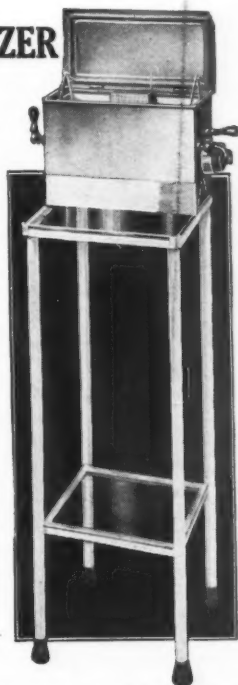
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